Education
in
India
Today
and
Tomorrow

S. N. Mukerji

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In India

And Tomorrow

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To My Father

Preface

The first edition of this book was published in 1950, the second in 1952, the third in 1957, the fourth in 1960, and there is a great demand for the fifth edition. This book has been used, therefore, during a period of rapid and vast changes that have taken place in this country since the initiation of the five-year plans. During the period, attacks on our modern educational beliefs and practices have also gained in intensity. It has, therefore, become necessary to revise the book once again and to examine some of the fundamental problems with which our education is faced today.

The Fourth Plan outlay for education is placed at Rs. 1,400 crores covering both general and technical education as against Rs. 560 crores in the Third Plan. A provision of Rs. 100 crores in the private sector is likely to be made so that a total outlay of Rs. 1,500 crores is envisaged for education. The Planning Commission has further approved action programmes for the Fourth Plan in the field of education involving a total expenditure of seventeen crores of rupees.

About 8,00,000 of elementary and 280,000 secondary school teachers have to be trained during the next Plan. To meet the requirements of the first year of the Fourth Plan, the capacity in training schools and colleges may be increased by 20,000 and 16,000 respectively.

Educational administration in the States is also likely to be strengthened to cope with the problem arising from the large rise in enrolment at all levels of education and implementation of schemes of qualitative improvement on which the Fourth Plan lays great emphasis.

The book examines some of the major problems facing education in this country today with schemes for reconstruction. It may, however, be noted that this volume has been primarily designed as a text-book for postgraduate students of education. The work may serve as the basal text-book but not as the only source of information. The best way to orient students in education is to expose them to extensive reading of pointed references. With this end in view, a selected bibliography has been given for each chapter at the end of the book.

I am very thankful to the authors and publishers of several publications from which extracts have been taken, or which have been referred to in the text. I am also indebted to several of my colleagues, and specially Prof. D. G. Apte for reading the proofs.

Baroda
November 1, 1964.

S. N. Mukerji

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CHAPTER ONE

THE BACKGROUND

"Education," writes Dr. F. W. Thomas, one of the most distinguished Indologists, "is no exotic in India. There is no country where the love of learning had so early an origin or has exercised so lasting and powerful an influence."[1] No doubt countries like China, Egypt and Babylonia rank with India as being the cradles of ancient civilizations, but no other country has left behind such enduring marks of heritage as India. Her art and literature, which survive to the present day, bear eloquent testimony to her cultural institutions of ancient days. These institutions with the hall-mark of the hoary past have lived through the ages on account of their system of education, which is acknowledged to be extraordinarily sound.

It is also interesting to note that in ancient India religion was the main spring of one's activities. It was of all-absorbing interest and embraced not only prayer and worship but everything — philosophy, morality, law and government. The study of Vedic literature was indispensable to every Hindu, and he had to be very careful about his moral, spiritual and intellectual growth. In short, the entire life of an Indian sprang from religion. In China and Greece, arts and philosophy, no doubt, originated from religion but still were largely independent of it.

Religion saturated educational ideals too. The educational system aimed at the building up of character, the development of personality and the preservation of the ancient culture of the motherland. The aim of education was to develop various aspects of life and also to ensure social service. As the *upanayana* (thread ceremony) was a compulsory *sanskara* (sacrament) for every Aryan, education was more or less compulsory for every boy of the *traivarnikas* (the Brahmanas, the Kshatriyas and the Vaishyas). The stages of instruction were very well-defined, viz., up to the age of seven at home, from eight to sixteen at school, and then at a university. During the whole course at school as at college, the student had to observe strict *brahmacharya*, viz., simple dress, plain food, a hard bed and a celibate life. He had to learn how to pray, to offer sacrifices, and to perform his social and religious duties. There were no exceptions, the rich as well as the poor being treated alike.

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[1] F. W. Thomas. *History and Prospects of British Education in India.* India, George Bell & Sons, 1891. p. 1.

But by about the end of the seventh century B. C., the Vedic ritual and learning had become more and more complex. Education was mostly confined to the Brahmanas, and the *upanayana* was being gradually discouraged among the non-Brahmanas. The teaching profession was virtually controlled by the Brahmanas, and education aimed at preparing individuals for their future vocations. Religion was reduced to a complicated ritual to be performed by Brahmana priests in a language hardly intelligible to any but a few. The formalism and exclusiveness of the Brahmanic system were largely responsible for the birth of two new religions, viz., Buddhism and Jainism.

Both these religions did not recognise the authority of the Vedas and challenged the exclusive claims of the Brahmanas to the priesthood. Their founders, Buddha and Mahavira, taught through the common languages of the people and gave education to all, irrespective of caste, creed or sex. Buddhism also introduced the monastic system of education.

Monasteries attached to Buddhist temples served the double purpose of imparting education and of training persons for the priesthood. Some of the monasteries, especially those at Nalanda and Taxila, had acquired an international reputation. In fact, Indian culture was at its zenith during this period. Numerous foreign scholars and pilgrims came to this country to drink deep at the fount of her culture. But very soon Hinduism absorbed the best elements of Buddhism, which disappeared from India with the advent of the Mohamedans.

The Muslim rulers did not interfere with the education of the Hindus, and Muslim education was confined mostly to the followers of Islam. Till the end of the fifteenth century A. D., the Mohamedans in India were "little more than an armed garrison"[1] in a foreign country and the education of the Hindus did not receive proper attention. The credit for organising education on a systematic basis goes to Akbar the Great, the famous contemporary of Queen Elizabeth I.

The Mohamedan rulers had set up two types of educational institutions, viz., the *maktabs* (primary schools), and the *madrassahs* (schools for higher learning — either high schools or colleges). Practically every mosque had a *maktab* attached to it. Thus primary education was brought within easy reach of the people, because the whole country was dotted over with mosques. The *madrassahs* were established in important towns only. Both the types of educational institutions were attended by the Hindus also, because they had to learn Persian, the court language.

After the death of Aurangzeb, the last Great Moghul, the Moghul Empire collapsed like a house of cards and the whole country was overrun by war-lords. Education naturally received a set-back and was at its lowest ebb during the period. Even then a popular system of education survived a century of decay, and numerous indigenous schools were found existing towards the beginning of the last century.

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[1] F. E. Keay. *Indian Education in Ancient and Later Times*. Bombay, O.U.P., 1942. p. 140.

Certain features of Hindu and Muslim education deserve special attention. The whole educational system was saturated with religious ideals which influenced the aim, the contents of study, and even the daily life of pupils. Thus knowledge was acquired through religion and as a religious obligation. In fact, the influence of religion was universal and much was done to spread culture in the countryside by wandering minstrels, who travelled on foot from village to village and in the evenings related mythological stories and recited verses from holy books.

Students had to learn a vocation according to their *varna* or family traditions. The system was very thorough, as it insisted on specialisation. But the practice gradually led to the growth of the caste system. The modern world has a deep prejudice against caste, but it should be realised that society in ancient India was an organisation made up of individuals highly rational, who had reached a high degree of civilisation. Each group had to discharge a definite function for the welfare of the whole community, and this led to the rise and growth of the caste system. But the practice gave a very thorough training in every direction and was not stamped with that type of narrow utilitarian ideal, which conditioned the whole educational outlook of Egypt, Assyria and Babylonia. The tightness of the system was, however, loosened to some extent by the Buddhistic and Islamic influences.

There is another noteworthy feature of ancient Indian education. It "spread downwards; it was not built up from below. Indian civilisation was a product of the country not of the town, of the forest, not of the city."[1] The forest was the fountain-head of our civilisation. It nurtured our Vedic and Buddhistic institutions. The forest life used to bring students into direct contact with nature, and was calculated to develop a most receptive frame of mind. In fact, as Tagore has remarked, "The current of civilisation that flowed from its forests inundated the whole of India."[2]

The success of the whole system depended to a great extent on the relation between the teacher and the taught—the reverence of the pupil for his *guru* (teacher) and the *guru's* affection for his disciple in return. The social status of the teacher was very high, and even the mightiest monarch used to pay homage to the humblest teacher. The teaching profession was adopted for the love of work and not so much for earning money. Learning was prized for its own sake and as a mark of the highest human development, and teaching was never handicapped by examination requirements. The system also encouraged intellectual freedom and paid individual attention to students.

A state administrative machinery of the modern type did not exist, and education was self-controlled. But both the Hindu and Muslim rulers considered it a religious obligation to help the spread of education. Liberal grants and donations were given for the promotion of education, and scholarships were awarded to deserving students. Royal patrons built universities and other educational institutions and endowed them with funds, but they neither claimed any authority over them nor interfered with their management. The royal courts were the sanctuaries of poets, musicians, painters, and learned men. Even big landholders were morally bound to spread education, and almost every village had a primary school of its own.

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[1] Annie Besant. *Indian Ideals*. Madras, Theosophical Publishing House, 1922. pp. 26-27.

[2] *Visva-Bharati Quarterly*, April, 1924. p. 64.

Unfortunately, during the later period certain defects crept into the system. Education became formal and stereotyped, and was not sufficiently liberal. It failed to meet the growing needs of the society. Religion also continued to have too great a hold on the Indian mind and reason was often at a discount. It should, however, be realised that similar defects were also prevalent in the European systems during the mediaeval period, and it was the revival of learning during the sixteenth century A. D. that infused a new spirit into European thinking.

The present educational system of the country is the result of Macaulay's Minute and Wood's Despatch. These two famous documents were inspired by the then utilitarian philosophy, a sense of superiority of the West, and the administrative requirements of British India. While Macaulay was an empiricist utilitarian, James Mill who is supposed to have drafted Wood's Despatch was a rationalist utilitarian. The system aimed at preparing a class of people, who could understand the English language and sympathise with the culture of their rulers. Benthamite radicalism was also partially responsible for Macaulay's contempt for Arabic and Sanskrit. To a Whig like Macaulay, the classics had a decreasing utility in an educational scheme.

Underlying the utilitarian philosophy was a deep-rooted conviction of Western superiority and a contempt for the civilisation of the East. British conquests and a rapid increase of wealth in England as a result of the industrial revolution towards the first half of the nineteenth century had created in the majority of Englishmen a feeling of racial superiority and a contempt for Eastern nations. To Macaulay and his contemporaries, a single shelf of "a good European library was worth the whole native literature of India and Arabia."[1] It is no wonder, therefore, that the Victorian ideals of the Edgeworths and of the new London University were foisted on India. Nobody realised that a new system without its being tried even in England was going to be implanted in India. Nor did anybody ever care to study either the Indian character or the Indian traditional system of education. A new rival system was thus suddenly set up. It was not in the least realised that, if civilisation "is to be transplanted and raised in foreign soil, it must be from seed rather than cuttings and in any case not by the importation of full-grown products."[2]

About a century and a half have elapsed since the present system of education was introduced in this country. It has no doubt succeeded in pruducing an army of clerks, petty officials and public men, but it has failed to meet India's needs. At present a feeling of discontent with the existing system of education prevails in the country. Starting with a small circle of educational thinkers and workers, the dissatisfaction has spread wider and wider engulfing the public and the student-world and even breaking through the crust of official self-complacency. In short, all are fully conscious that the present educational system should be radically overhauled, if it is to serve the needs of the future generation.

India has now attained independence, but her freedom has brought new problems in its wake. With a view to raising the standards of living, the National Government has put into operation three Five-Year Plans — (1951-56), (1956-61) and (1961-66). These embrace the entire country and every aspect of Indian life — education, agriculture and rural development, irrigation and power, transport and communication, industry, health, housing, welfare of the backward classes, and similar allied problems. All the plans fully recognise the importance of education as the foundation of national reconstruction but the money earmarked for educational development is meagre.

---

[1] *Macaulay's Minute.*

[2] A. Mayhew. *The Education of India.* London, Faber and Gwyer, 1928. p. 55.

The plan outlay and outlay during first, second and third plans are given below:

TABLE 1

Plan Outlay: Total and Education[1]

(Rupees in crores)

Outlay	First Plan		Second Plan		Third Plan	
	Outlay	Expenditure	Outlay	Expenditure	Outlay	Expenditure
1. Total Plan Outlay	2,378	1,960	4,500	4,672	8,000[2]	
2. Outlay on Education ..	170	149	277	273	560	
3. 2 as percentage of 1 ..	7·1	7·6	6·2	7·0	7·0	

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[1] Government of India. *Programmes of Educational Development, 1961-66.* (Unpublished). p. 3.

[2] Financial limit is Rs. 7,500 crores.

In the First Plan, while the approved plan outlay both for the Centre and the States was Rs. 170 crores, the expenditure incurred was only Rs. 149 crores; there was a shortfall of about Rs. 18 crores under General Education and three crores of rupees under Technical Education. Out of the total shortfall under General Education, the shortfall at the Centre was about Rs. 10 crores. Likewise, out of the total shortfall of three crores of rupees under Technical Education, the bulk of shortfall, i.e., Rs. 2.8 crores was at the Centre.

In the Second Plan, while the overall short-fall was of the order of 3.4 crores, it was mainly under Technical Education and cultural programmes. While under General Education, there was an excess of expenditure in the States, there was short-fall at the Centre. The position in regard to Technical Education was vice-versa; the excess in expenditure at the Centre was of the order of Rs. 207 crores and the shortfall in the States was of the order of Rs. 5 crores.

In addition to the outlay on education shown in Table 1, the following provisions for General Education have been made under programmes of welfare of Backward Classes, Community Development and Rehabilation of the Displaced:

TABLE 2

General Education in the Plans in Heads, other than Education[1]

(Rupees in crores)

Plan	Welfare of Backward Classes	Community Development	Rehabilitation of Displaced	Total
First Plan (expenditure) ..	10	5	16	31
Second Plan (expenditure) ..	25	19	16	60
Third Plan (provision) ..	42	37	3[2]	82

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[1] Government of India. *Programmes of Education Development, 1961-66.* (Unpublished). p. 4.

[2] This is a part of Rs. 76 crores plan. The plan was later on reduced to Rs 40 crores (programme limit) and Rs. 20 crores (financial limit).

The achievements under the first and second plans and the targets aimed at under the Third Plan are indicated in Table 3.

TABLE 3

Achievements and Targets, Five-Year Plans

	1950-51	1955-56	1960-61 (estimated)	1965-66 (targets)
(1)	(2)	(3)	(4)	(5)
Number of pupils in classes I to V (in lakhs)	1,92	2,52	3,43	4,96
Percentage thereof to total population of the age group 6-11	42·6	52·9	61·1	76·4
Number of pupils in classes VI to VIII (in lakhs)	31	43	63	98
Percentage thereof to total population of the age group 11-14	12·7	16·6	22·8	28·6
Number of pupils in classes IX to XI (in lakhs)	12	19	29	46
Percentage thereof to total population of the age group 14-17	5·3	7·8	11·5	15·6
Number of pupils at the university stage—arts, science and commerce—(in lakhs)	4	6	9	13
Percentage there of to total population in the age group 17-13	0·9	1·5	1·8	2·4
Percentage of students reading science at university stage	38·1	33·0	35·8	42·5
Number of primary/junior basic schools	2,09,671	2,78,135	3,42,000	4,15,000
Number of middle/senior basic schools	13,596	21,730	39,600	57,700
Number of high/higher secondary schools	7,288	10,838	16,600	21,800
Number of multi-purpose schools	—	255	2,115	2,446
Number of training schools	782	930	1,307	1,424
Number of training colleges	53	107	236	312
Number of arts, science and commerce colleges	542	772	1,050	1,400
Number of universities	27	32	46	58
Percentage of trained teachers:				
Primary schools	58·8	61·2	65·0	75·0
Middle schools	53·3	58·5	65·0	75·0
High/higher secondary schools	53·8	59·7	68·0	75·0

* *India 1963*. p. 68

The statistics of Table 3 also show that there has been a marked expansion in facilities for education at all levels since the First Plan. The Table below indicates the year-wise programme of the Third Plan and the role which the Centre and the States are likely to play.

TABLE 4

Programmes of the Third Plan[1]

(Rupees in crores)

	Third Plan	1961-62		1962-63 Budget
		Budget	Anticipated	
I Centre				
1 General Education	72·1	13·0	10·5	14·0
2 Technical Education	70·0	15·1	11·9	12·9
3 Cultural Programmes	6·0	0·7	0·7	0·9
Total	148·1	28·8	23·1	27·8
II States				
1 General Education	336·0	42·6	44·5	57·0
2 Technical Education	71·6	11·2	8·9	14·1
3 Cultural Programmes	4·0	0·8	0·7	1·0
Total	411·6	54·6	54·1	72·1
III Centres & States				
1 General Education	408·1	55·6	58·0	71·0
2 Technical Education	141·6	26·3	20·8	27·0
3 Cultural Programmes	10·0	1·5	1·4	1·9
Total	**559·7**	**83·7**	**77·2**	**99·9**

[1] Government of India. *Programmes of Educational Development*, 1961-66. (Unpublished). p. 6.

In the programmes of education, the Third Plan lays a special emphasis on the provision of universal education for the age-group 6-11, improvement of science education at the secondary and university stages, training of teachers of all grades and expansion of technical education.

With the end of the Third Plan almost in sight, the Planning Commission is considering at present the proposals for the Fourth Five-Year Plan. It rightly feels that this Plan should be formulated in the perspective of development over a period of fifteen years (1966-81). The following table gives the expected percentage of pupils in school in relation to different age-groups during this period.

TABLE 5

Expected Percentage of Pupils in School, 1966-81[1]

		1966	1971	1976	1981
Primary	M	96·0	100·0	100·0 +	100·0 +
6-11	F	63·3	82·0	100·0	100·0 +
	T	**80·2**	**94·0**	**100·0 +**	**100·0 +**
Middle	M	44·9	60·2	81·5	100·0
11-14	F	18·2	32·0	69·6	100·0
	T	**32·0**	**47·5**	**76·0**	**100·0**
Secondary	M	27·3	36·0	47·5	64·0
14-17	F	7·8	13·5	24·0	38·0
	T	**17·8**	**25·0**	**36·0**	**51·0**
Higher	M	6·4	8·0	10·0	14·0
7-20	F	1·8	2·9	4·8	7·5
	T	**4·0**	**5·0**	**7·4**	**10·9**

[1] *In the table where the enrolment will exceed the population in the age-group because of the population of children of neighbouring age-group, a + mark has been indicated against 100 per cent.*

The Ministry of Education is equally conscious of the needs of the day, and it has set up a Central Planning Group in February 1964 for preparing a broad outline of a persecptive plan of educational development during the above period and, against its background to prepare programmes for inclusion in the Fourth Five Year Plan (1966-71). Shri M. C. Chagla, the Union Minister of Education, is its Chairman.

Such are the main provisions of the five-year plans, and India is today faced with the task of remodelling her system of education in the national interest. It has been fully realised that in Free India education cannot be confined to a section of the population; it will have to be spread amongst all—adults and children, boys as well as girls. Thus this newly won freedom offers a great challenge to our educationists, who have now been compelled to plan for the education of every Indian.

Ever since Independence, two main aims have guided India's planned development—to build up by democratic means a rapidly expanding and technologically progressive economy and a social order based on justice and offering equal opportunity to every citizen. To change a traditional society into a dynamic one, in a country with a population rooted in the past, is a tremendous task.

Education is in the melting pot in India today and the entire system is being challenged: the educational structure, the medium of instruction, administrative machinery, university and secondary education, the type of education, claims of rural against urban education, women's education, professional and vocational education, the teaching of the national language, and similar other problems. All thinking minds in India are constantly pondering over these problems.

The present position of education in the country has been very clearly pointed out in a recent report, which says:

> Education in India has expanded very rapidly since the attainment of independence. This pressure of numbers at all stages of education has, generally speaking, reacted adversely on standards of instruction and tended to lower the quality of staff, equipment, buildings and other necessary amenities. It has led to the diversion of a large proportion of the limited funds available to quantitative

expansion and to the comparative neglect to measures for the improvement of quality.[1]

The Government is thus faced with a herculean task. Yet the goal is the greatest any free country can aim at: the education of its citizens, which is the real independence. And we are moving, steadily and surely, towards that goal. The success of any vast programme, however, depends not only on the Government, but also on the teachers and the community they serve.

The Government of India has recently announced the appointment of a 16 — member Education Commission to make a comprehensive review of the entire field of education and advise the Government on evolving a national pattern at all stages of education. Dr. D. S. Kothari, the Chairman of the University Grants Commission, is its Chairman.

The Commission will advise the Government on the national pattern of education and on the general principles and policies for the development of education at all stages and in all its aspects. It need not, however, examine the problems of adult, medical or legal education, but such aspects of these problems as are necessary for its comprehensive inquiry may be looked into.

It is expected that the Commission will submit its report by March, 1966. The Commission may, however, submit interim reports dealing with limited sectors or problems of education where immediate implementation of certain programmes is necessary.

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[1] K. G. Saiyidain and H. C. Gupta. *Access to Higher Education in India*. New Delhi, UNESCO, 1962. p. 75.

CHAPTER TWO

ORGANISATION OF EDUCATION

STATES OF INDIA

The Indian Union originally consisted of 29 administrative units — ten Part 'A', eight Part 'B' and ten Part 'C' States, and one Part 'D' territory. On November 1, 1956, the map of the Indian Union was redrawn and out of the old Union was carved out a new Indian Union with fifteen States and ten centrally administered territories. Here are the details of the new Indian States:

TABLE 6

States of India*

	Area in sq. miles	Population 1961	*Percentage of Literacy*		
			Persons	Males	Females
INDIA	12,61,597	43,90,72,893	24·0	34·4	12·9
States					
Andhra Pradesh	1,06,286	3,59,83,447	21·2	30·2	12·0
Assam	78,529	1,22,09,330	27·4	37·3	16·0
Bihar	67,196	4,64,55,610	18·4	29·8	6·9
Gujarat	72,245	2,06,33,350	30·5	41·1	19·1
Jammu & Kashmir	86,023	35,60,976	11·0	17·0	4·3
Kerala	15,002	1,69,03,715	46·8	55·0	38·9
Madhya Pradesh	1,71,217	3,23,72,408	17·1	27·0	6·7
Madras	50,331	3,36,86,953	31·4	44·5	18·2
Maharashtra	1,18,717	3,95,53,718	29·8	42·0	16·8
Mysore	74,210	2,35,86,772	25·4	36·1	14·2
Orissa	60,164	1,75,48,846	21·7	34·7	8·6
Punjab	47,108	2,03,06,812	24·2	33·0	14·1
Rajasthan	1,32,152	2,01,55,602	15·2	23·7	5·8
Uttar Pradesh	1,13,654	7,37,46,401	17·6	27·3	7·0
West Bengal	33,829	3,49,26,279	29·3	40·1	17·0

Each of the above States has a governor with a cabinet of ministers and two houses of legislature—the Assembly and the Council. The Central Government manages the affairs of ten territories, viz., (1) Andaman and Nicobar Islands, (2) Delhi, (3) Himachal Pradesh, (4) Laccadive, Minicoy and Amindivi Islands, (5) Manipur, (6) Tripura, (7) Dadra and Nagar Haveli, (8) Goa, Daman and Div, (9) Nagaland, and (10) Pondicherry.

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* *India* **1963**. p. 7 and 69.

EDUCATIONAL ADMINISTRATION

The Background

Educational administration in India is not suspended from mid-air. As a result of the recommendations of the Wood's Despatch, Departments of Public Instruction were created in the provinces and an Education Branch was set up in the Home Department in 1857. In 1901, Lord Curzon appointed a Director General of Education at the Centre. He was attached to the Home Department, and was made primarily responsible for advising the Government of India on all matters pertaining to education.

This position continued for nine years, when in 1910, an independent Department of Education was created at the Centre and the Viceroy's Executive Council was enlarged with the addition of the Member for Education. But the post of Director General was abolished. However in 1915, the post was revived under the changed designation and the officer in charge was to be thereafter styled as the Educational Commissioner. Another important feature of that year was the establishment of the Bureau of Education, the main functions of which were to publish Occasional Reports on educational matters in addition to publishing annual and quinquennial reviews.

It may be noted that till 1919, the Government of India was chiefly concerned with the duty of framing policy and inspiring reforms for the whole country. But with the inauguration of the Montford Reforms in 1919, all control and responsibility for provincial education were transferred to the newly created provincial Ministers of Education. But this transfer of power not only isolated the Provincial Governments from the Central Government, it also isolated them from one another. The new policy also encouraged an exaggerated form of provincialism, overlapping of experiments, and wastage of energy. It also deprived the Government of India of the power of guiding or formulating an educational policy for the whole country. According to these reforms, its power to act even as an advisory and co-ordinating agency on the problems of all-India importance came to an end.

The need for a co-ordinating agency was, however, felt both by the Central and Provincial Governments. Consequently, the Central Advisory Board of Education (CABE) was established in 1921. The Board served a real need, but it was suddenly abolished in the interest of economy only two years later. The axe of retrenchment did not stop with it. It went even further. The Bureau of Education was next ended, and the Department of Education was amalgamated with that of Health, Lands and Agriculture. In this manner, the duties of the Educational Commissioner increased enormously.

The drawbacks of such an ill-thought out economy soon became evident, and hence the CABE was once again revived in 1935 on the recommendations of the Hartog Committee. The Board was attached to the Department of Education, Health and Lands of the Government of India. A Member of the Viceroy's Executive Council was placed in charge of that Department.

In 1945, the Department of Education, Health and Lands was trifurcated and a separate Department of Education was set up. In 1947, it was raised to the status of a Ministry.

Ten years later, it was further entrusted with scientific research. In 1958, the Ministry of Education and Scientific Research was reorganized and was bifurcated into two independent ministries, viz., (1) the Ministry of Education, and (2) the Ministry of Scientific Research and Cultural Affairs. In 1963, both these ministries were again combined into one ministry known as the 'Ministry of Education'.

Such is the brief survey of the development of educational administration in this country. The Constitution of India did not envisage an overall change in the administrative policy of education in the country, and education continues to be the prime responsibility of State Governments. Education is, however, administered by three distinct bodies, viz., (1) Central Government, (2) State Governments, and (3) Local bodies.

Central Government

THE MINISTRY OF EDUCATION. — The Indian Ministry of Education is under the charge of a Minister of cabinet rank. He plays an important role in formulating general policies and ensuring uniformity in the pattern of education in different States. He is assisted by one or two deputy ministers according to need.

The Educational Adviser is the administrative head of the Ministry. He is the Secretary to the Government of India, and is the principal adviser to the Minister on all matters of policy and administration.

With effect from Thursday, the 9th April, 1964, the Ministry is functioning through the following five bureaux dealing with the following:

1. School Education;
2. Higher Education;
3. Language, literature and fine arts;
4. Scholarships; and
5. Planning and ancillary educational services.[1]

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[1] '*Times of India*', April 6, 1964.

The reorganisation plan follows the abolition of the Ministries of Education and Science. Subjects formerly dealt with by different divisions and units have now been brought together under the respective bureaux.

The Bureau of School Education comprises the former divisions dealing with elementary, basic and secondary education and the central schools unit, while the bureau of higher education covers both university and technical education. The idea is to ensure close co-ordination between technical education programmes and the universities. The Bureau of Scholarships deals with all matters relating to scholarships, internal or external, as well as general and cultural. Hitherto this subject was handled in four or five units. The Bureau of Planning and Ancillary Educational Services includes the National Council for Educational Research and Training Unit, social education, planning, publications, statistics and information.

Cultural matters and the development of Indian languages have been brought within the scope of the Bureau of Language, Literature and Fine Arts. This bureau is also in charge of the three academies. The scientific research division is allied to the Bureau of Scholarship.

Each bureau has been put in charge of a joint secretary or a joint educational adviser to whom is attached divisional heads for the major subjects. The physical education and recreation division and the external relations division is separately under the charge of a joint educational adviser.

The Ministry is further helped by a number of advisory or statutory bodies. Some of the most important bodies are: (1) Central Advisory Board of Education, (2) All-India Council for Technical Education, (3) University Grants Commission, (4) All-India Council for Elementary Education, (5) Central Social Welfare Board, (6) National Board of Basic Education, (7) Central Board of Sanskrit, (8) National Board of Audio-Visual Education, (9) National Council for Women's Education and (10) National Council for Rural Higher Education. While the activities of the Central Advisory Board of Education (CABE) are examined in this chapter, the functions of other bodies will be discussed at relevant places later on in this book.

The CABE is a statutory body and was first constituted in 1921 [1] It is the main pivot of activities of the Ministry. The present constitution of the Board is given below:

1. The Hon'ble Minister for Education (Chairman).
2. The Educational Adviser to the Government of India.
3. Fifteen members to be nominated by the Government of India, of whom four shall be women.
4. Five members of Parliament, two from the Upper House and three from the Lower House, to be selected by Parliament.
5. Two member of the Inter-University Board (India) nominated by the Board from amongst the representatives of universities in India.
6. Two members of the All-India Council for Technical Education to be nominated by the Council.
7. One representative of each State Government, who shall be the Minister-in-Charge of Education. If he is unable to attend a particular meeting, he may nominate an officer of his Department for that meeting.
8. Secretary of the Board — who will be appointed by the Government of India.

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[1] *Supra*, p. 17.

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The tenure of office of the non-official members of the Board will be three years provided that a member elected or nominated under Sub-Clause (4), (5) and (6) shall forthwith cease to be a member of the Board if he ceases to be a member of Parliament, the Inter-University Board or the All-India Council for Technical Education as the case may be. The ex-officio members of the Board will similarly cease to be members, when they relinquish the office by virtue of which they are members of the Board.

All casual vacancies among the members other than ex-officio members shall be filled by the authority or body who nominated or elected the member whose place falls vacant and the person appointed to a casual vacancy shall be a member of the Board for the residue of the term for which the person whose place he fills would have been a member.[1]

The Board meets every year and discusses matters of all-India importance. Four standing committees of the Board dealing with elementary, secondary, university and social education, formulate aims and objects, assess present position and draw up future plans in their respective fields. Their activities are co-ordinated by a Standing Committee of the Board. It may, however, be noted that the decisions of the Board are, however, not binding on the States, as they are free agents accepting the Centre's suggestions voluntarily. As such, there are obvious limits to such a purely recommendatory body. The functions of the Board are unexceptionable in themselves, but the educational system of this country persists in the doldrums since the recommendations of the Board have little or no relation to realities. The pity is that at times it

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[1] Government of India, Ministry of Education, *Notification. No. F. 6-2-50-D.*, May 25, 1950.

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becomes necessary to arrange special meetings of Education Ministers, inspite of the fact that all State Governments are represented on the Board.

Attached to the Board is the Central Bureau of Education, which works through two secretaries dealing with overseas and internal information. The Bureau collects most recent information about educational progress in India and abroad. In addition to the publication of annual and quinquennial reviews on the progress of education in India, the Bureau has also published several educational reports of great importance. It also maintains an excellent library

It may, however, be noted that the Central Government has a very limited control over education and the management of public instruction rests with State Governments. The Government of India, however, actually plays a very important role as a coordinating agency and its activities are manifold. Being the central government it has to discharge several functions. (1) It fixes a general policy of reconstruction with an all-India outlook, maintains cultural relations with foreign countries, associations and the UNESCO, and grants scholarships to Scheduled Castes, Aboriginal and Hill tribes as well as to overseas students from this country. It also looks after the welfare of Indian students abroad and is incharge of Overseas Education Department in London, Washington, Bonn and Nairobi. (2) It is a co-ordinating, advisory and informative agency so far as the State Governments are concerned. With the help of the Central Advisory Board and the Bureau of Education, it is able to advise and collate for the benefit of the States, educational experiments derived not only from different parts of the country but even from abroad. The Bureau publishes educational reports and statistics of great importance. (3) The Government of India is exclusively in charge of education in Centrally Administered

Areas.[1] It also looks after the Central Universities, viz., Delhi, Aligarh, Banaras, and Visva-Bharati. (4) It deals with the eighteen public schools in India (including the Lawrence Schools at Sanawar and Lovedale and 28 national laboratories). (5) It conducts several educational and research institutions, viz., Indian Institutes of Technology at Kharagpur, Bombay, Madras and Kanpur; the Indian School of Mines and Applied Geology, Dhanbad; Delhi Polytechnic; Central Institute of English, Hyderabad; Training Centre for Adult Blind, Dehra Dun; Central Braille Press, Dehra Dun; National Institute of Sports, Paliala and National Book Trust; Lakshmibai College of Education, Gwalior. (6) The Union Ministry of Education loans educational films. It further gives liberal grants-in-aid to State Governments and universities for research work. But the programmes of these bodies have to be approved by the Central Government. They should be in accord with the all-India approved educational policy.

State Governments

Since 1921, education has been a provincial subject under the direct control of an elected Education Minister responsible to the State legislature. The Constitution of Free India has not deviated from that pattern, and education at all stages with two important qualifications still remains a State subject. These qualifications are in respect of advanced research and technical education In view of the need for coordination of facilities and the maintenance of standards at the higher levels, the Constitution has placed on the Central Government the responsibility in these regards. The heavy expenses involved in scientific and technical education require that there should be avoidance of any duplication in these fields. The promotion of higher research and technical education is, therefore, a central responsibility.

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[1] *Supra*, p. 16.

State Governments are fully autonomous in regard to their educational programmes except those for which they receive grants-in-aid from the Centre. The administrative machinery of a State consists of the Minister of Education, the Secretary for Education, the Director of Education (D.E.), a corps of inspectors, and usual minor personnel of a state department. The Minister controls the educational policy and directs its execution. He is also responsible to the state legislature of which he is a member. The secretary is generally an administrative officer. He passes orders on behalf of Government in eduational matters. The D.E. is the permanent head of the department and is the technical adviser to the Minister. In some States, he also works as the Secretary.

The Education Department administers every branch of education, but certain forms of technical education are under the technical departments concerned. The D.E. is assisted by an inspecting staff. The inspectorate generally forms a hierarchy with divisional offices and is assisted by assistant inspectors in each division, and with deputy or district inspectors assisted by a number of assistant district or sub-inspectors in each State.

Government shares its power with or delegates a part of it to universities as regards higher education and to local boards as regards primary education and instruction through mother-tongue. There are also some statutory bodies (the Boards of Secondary and Higher Secondary Education), which control and conduct High School and Higher Secondary examinations in certain areas.[1]

Local Boards

Closely associated with the States are the local boards, which include District, Municipal and Cantonment Boards, as well as, Town Area Committees and *Janapada Sabhas*.

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[1] *Infra,* Ch. V.

Government through a series of acts, resolutions and announcements has devolved a good deal of control over education on local boards. The Reform Report of 1919 declared, "There should be as far as possible complete popular control in local bodies and the largest possible independence for them of outside control." Since then numerous acts have been passed by State (Provincial) Legislatures, giving local boards wide powers over local affairs, including education. These acts are different in different States. But today in the majority of States, the control over primary education has passed almost entirely to local boards. They function through their school boards, support and manage their own schools, and recognise and aid private schools. They even draw up their own schemes for the expansion of primary education and maintain their own supervisory and administrative staff.

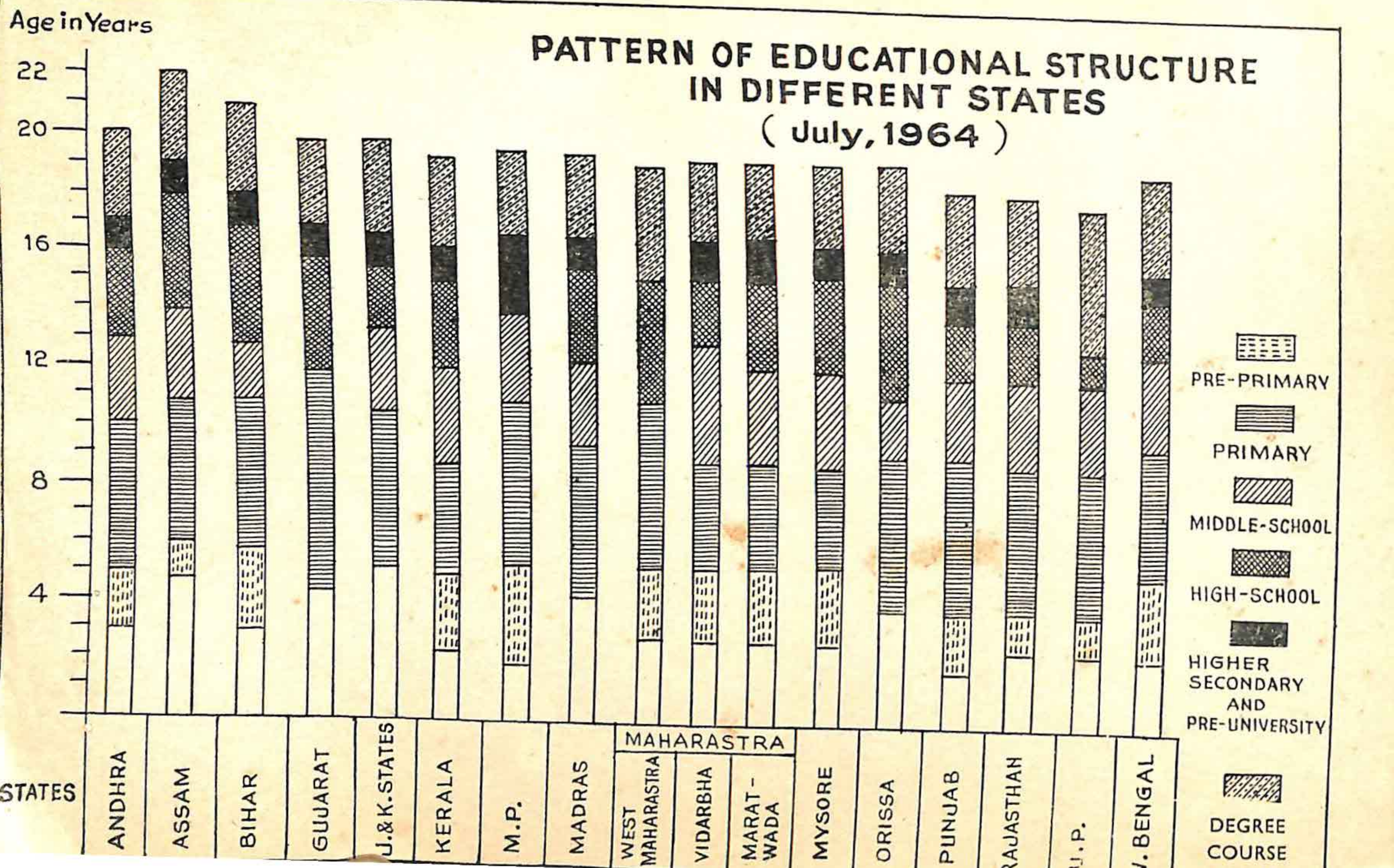
A new step towards 'democratic decentralisation' has been taken in the country as a result of the recommendations of the Balwantrai Mehta Committee, which felt that the district was too large a unit of administration for the people to take 'personal interest and make sacrifices for common good.' It, therefore, recommended that the *block* was a suitable unit of administration, and proposed the establishment of a local body at the block level called the *panchayat samiti* which was to be indirectly elected by the village *panchayat*, some representation being given also to municipalities and cooperative organisations within the block and assigned specific functions and revenues. The Mehta Committee felt that with the devolution of development functions on the *panchayat samiti*, the district board or any other executive body at the district level would become superfluous. It, therefore, recommended the setting up of a *zilla parishad* at the district level which would function as a coordinating body. According to the Mehta Committee, the *zilla parishad* should have the power to approve the annual budget of each *panchayat samiti* in its jurisdiction, to consolidate and forward to government the demands for grants of the blocks, to distribute funds allotted by the government among the blocks, to coordinate the block plans and to guide the *samiti's* activities. The Mehta Committee envisages a three-tier system of decentralisation, namely the village *panchayat*, the *panchayat samiti* and the *zilla parishad*.

The Balwantrai Mehta Committee has convincingly made out a case for adopting the block as a basic unit of administration and charging the *panchayat samiti* at this level with the responsibility of maintaining primary schools. There are several advantages in adopting the block as a primary unit of administration, the most striking of them are: (1) the block is the suitable level at which the functions of constructing school buildings can be assigned; (2) the construction of school buildings can be better organised through the block advisory committee than from the district level; (3) the functions of supervision of primary schools and the supply of equipment to schools can also be more conveniently entrusted at the block level; (4) the administration of primary education would be brought closer to people and the difficult problems of ensuring local interest and cooperation in increasing enrolment of children of compulsory age and retaining them in schools till they complete the period of compulsory education would be more satisfactorily dealt with. The *panchayat samiti* at the block level would function as an intermediary body between the village *panchayat* and the district body. A number of states have already taken steps for implementing the recommendations.

CLASSIFICATION OF INSTITUTIONS

The broadest division of educational institutions is that which classifies them as Recognised or Unrecognised. The first type of institutions are those in which the courses of study followed are those which are recognised or prescribed by the Department of Public Instruction or by the Education

ILLUSTRATION 1



PATTERN OF EDUCATIONAL STRUCTURE IN DIFFERENT STATES (July, 1964)

Board or by the University and which satisfy one or both of these authorities and which maintain a reasonable standard of efficiency. They are open to inspection, and their pupils are ordinarily eligible for admission to all public examinations and tests held by the department or the board or the university. All other institutions are described as Unrecognised Institutions. They are for the most part indigenous schools in which are taught Sanskrit, Pali, Arabic, the Koran, native systems of medicine, etc.

Recognised institutions are either publicly managed or privately managed. Publicly managed institutions are those which are under the direct management of Government or of a local or municipal board. Privately managed institutions are those which are managed by societies or individuals. These institutions are ordinarily subdivided as aided and unaided. An aided institution is one which receives a subsidy from Government or from a local or municipal board. Unaided institutions are financed solely from fees, endowments and subscriptions.

During 1960-61 there were 472,653 recognised educational institutions in the country. Of these 20·5 per cent were managed by government, 46·3 per cent by local boards, and 33·2 per cent by private bodies (30·5 per cent aided and 2·7 per cent unaided).[1]

THE EDUCATIONAL LADDER

The division of educational institutions according to standards follows that which is ordinarily found in most other countries. Pre-primary education is more or less absent in India. A few nursery, infant or kindergarten schools exist in urban areas. The second stage is the primary or elementary stage. It extends in some States to four years and in others to five years, the age period being six or seven to ten or eleven. Under the system of Basic Education,[1] some States have introduced Junior Basic Schools, but their number is small. A few States have organised a new type of institution known as the higher elementary school or vernacular middle school, where all subjects are taught through the mother-tongue and no other language is taught. These schools cater to the pupils of the post-primary stage, the duration of the course being three years.

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[1] Ministry of Education. *Education in the States*, 1960-61. p. 1.

At the secondary level, there are two divisions — the junior (middle or senior basic) and the senior (high). The junior stage covers a period varying in different areas, between three and four years. The senior stage extends over a period of three or four years. Quite recently, higher secondary schools have been established in almost all the States, there high schools have been upgraded by the addition of the first year from the intermediate stage of the university.

At the university level, the first degree course is generally of four years, comprising two years of intermediate and two years of the degree course. In the States, where the higher secondary school has been organised, the degree stage is of three years' duration, the intermediate stage having been abolished. The Master's Degree requires a further study of two years; and additional two years are required for getting the doctorate degree.

Besides these institutions of general education, there are numerous schools and colleges of a special character, covering a wide range of professional and vocational subjects, viz., commerce, engineering and technology, teaching, medicine, law, agriculture, forestry, and the like. Students who wish to follow a professional course in a college must usually pass the

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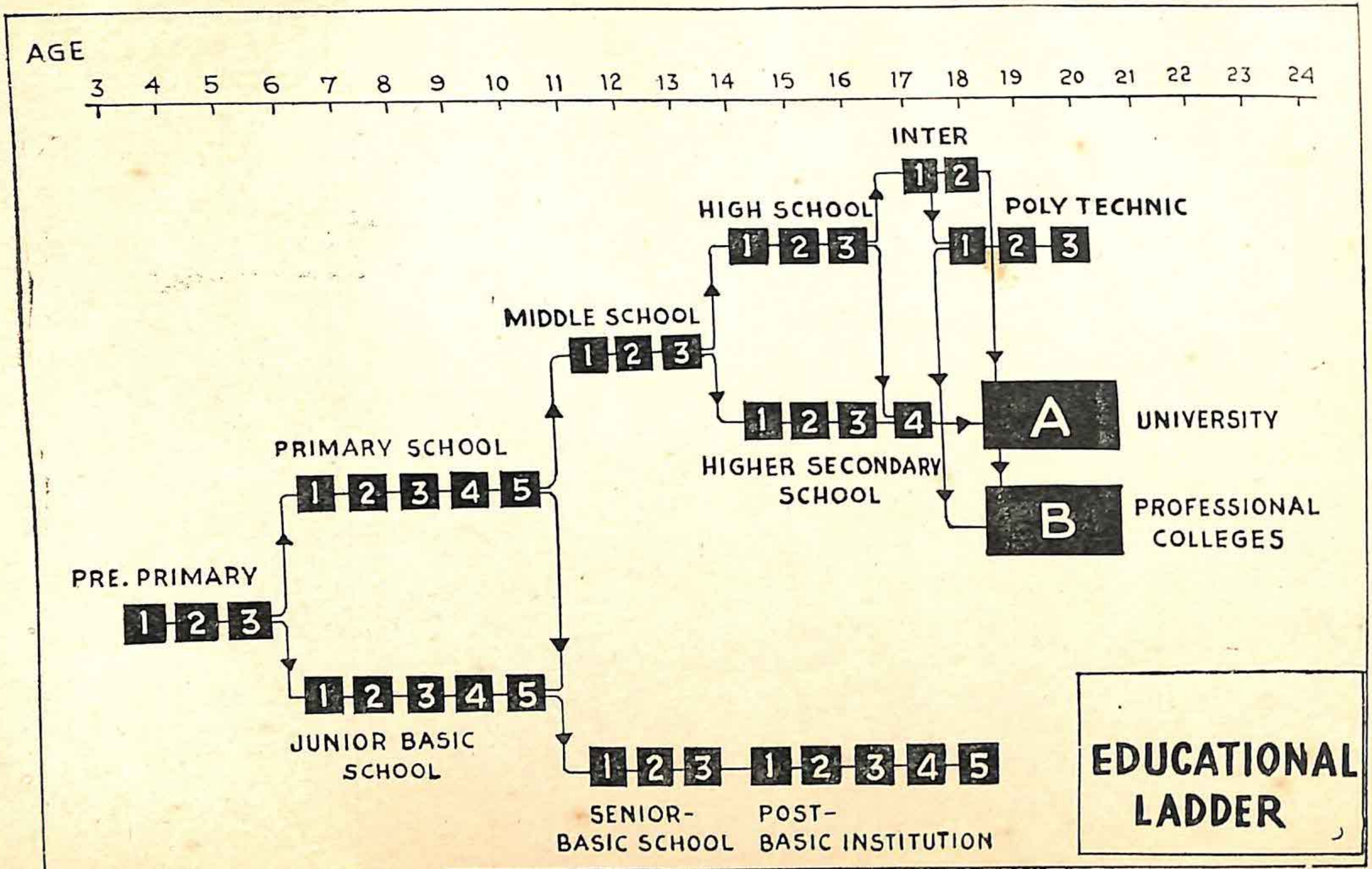
[1] *Infra*, Ch. III.

ILLUSTRATION 2



intermediate or the pre-professional examination, but a matriculate can join a polytechnic or a technical or vocational school for any special branch of study. Besides these, there are some special schools for the handicapped or for juvenile delinquents.

It is thus quite clear that from start to finish, the course for a student who pursues the arts or science curriculum is for 16 to 18 years. If he commenced at six years of age, he would attain the degree course at about 20 or 21.

Illustration 2 shows the main types of schools founded throughout the country. The variation in ages of attendance and the general lines of profession have been indicated by arrows. It may, however, be noted that the educational system in India varies from State to State, and the periods of time shown against the school stages are only typical and do not apply uniformly to all States.

During 1960-61 the total number of pupils in recognised institutions was 4·79 crores (3·37 crores boys and 1·42 crore girls). They were distributed as pre-primary stage 0·4 per cent., primary stage 71·2 per cent., secondary stage 21·7 per cent., university stage (general education) 1·7 per cent, while the remaining 5 per cent. received professional and special education of both school and college standards. Nearly 72 per cent. of the pupils came from rural areas. Educational facilities available for school going children in the age-group 6-11, 11-14, 14-17 were to the extent of 62·2, 24·2, and 11·3 per cent. respectively.[1]

The entire education system, however, is in a state of flux in India today. New programmes are already on the anvil and some projects have been launched. It is expected that the whole educational pattern would be modified very shortly.

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[1] *Education in the States*, 1960-61. p. 1.

EXPENDITURE

Expenditure on education is classified under two heads — 'Direct' and 'Indirect'. 'Direct' expenditure means the outlay, that is devoted directly to the maintenance of institutions and remuneration to teachers, while 'Indirect' expenditure represents the expenses incurred on direction, inspection, buildings, furniture, scholarships and other miscellaneous items which by their nature cannot be apportioned to any individual institution or type of institutions.

During recent years, the total expenditure, direct and indirect, has been increasing. While the expenditure in 1950-51 was Rs. 114 crores, it rose to about Rs. 300 crores in 1959-60. Table 7 gives an idea of the growth of expenditure on educational institution by sources.

TABLE 7

Expenditure on Educational Institutions by Sources, 1950-51 to 1959-60[1]

(Rupees in crores)

Sources	Expenditure			Percentage to Total		
	1950-51	1955-56	1959-60	1950-51	1955-56	1959-60
Government Funds						
Centre	3·52	12·15	23·75	3·1	6·4	7·9
States	61·74	105·05	178·30	54·0	55·4	59·5
District Board Funds	7·86	9·90	10·25	6·9	5·2	3·4
Municipal Board Funds	4·64	6·45	9·47	4·0	3·4	3·2
Fees	23·33	37·90	52·14	20·4	20·0	17·4
Other Sources.. ..	13·29	18·20	25·75	11·6	9·6	18.6
Total	114·38	189·65	299·66	100·00	100·0	100·0

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[1] Government of India. *Programmes of Educational Developments*, 1961-66. (Unpublished). p. 12.

The above table clearly show that the proportion of expenditure from government sources has been increasing. After the

State Governments' Funds, the largest amount out of which educational programmes are financed, is the fees. The per capita expenditure on education has also been steadily increasing. When compared to the year 1950-51, the percentage of per capita education expenditure to the per capita national income in 1965-66 would be doubled. This will be evident from the following statistics.

TABLE 8

National Income and Education[1]

Year	National Income per head of Population.	Educational Expenditure per per head of Population	3 as percentage of Col. 2
1	2	3	4
1949-50	253·9	2·89	1·11
1950-51	265·2	3·18	1·20
1951-52	274·2	3·40	1·26
1952-53	265·4	3·69	1·4
1953-54	278·1	3·89	1·4
1954-55	250·3	4·26	1·7
1955-56	255·0	4·81	1·9
1956-57	283·4	5·13	1·8
1957-58	279·6	5·86	2·1
1958-59	303·0	6·32	2·2
1959-60[2]	330·0	7·30	2·2
1960-61[2]	385·00	9·40	2·4

[1] Government of India. *Programmes of Educational Developments*, 1961-66. (Unpublished). p. 13

[2] Estimated.

Thus the expenditure on education in 1949-50 was 1.11 of the national income. The figure has risen to 2.4 in 1960-61, and is likely to rise to 2.6 per cent by the end of the Third Plan. This, however, is much lower as compared to other countries. England and the U.S.A. spend four per cent of their national income on education while the percentage in Japan is over six per cent. The most striking case is that of Russia which spends eight per cent of her national income on education.

CHAPTER THREE

BASIC EDUCATION

INTRODUCTION

The most outstanding movement in Indian education during recent years in basic education — "the last and most precious gift"[1] to India by Gandhiji. In his effort to liberate his country and to create a new social and economic order, he fully realised that a proper system of education was necessary. His repeated tours throughout the country brought him into close contact with the masses. Their gruelling poverty struck him most. He found them helpless in every aspect of life — in food, clothing, etc.

But worse than the material poverty was the poverty of spirit. His contact with educated youths showed him that there was something wrong in the system of education. The education that they had received uprooted them from the soil and the environment; they vainly tried to think and speak in a foreign language; they accepted everything that came from the West, and yet they knew nothing about the condition of their own country and were strangers in their own land. Gandhiji found that education to be real, must be based on activity and experience. He also found that we cannot afford to spend large sums of money on these activities as has been done in many foreign countries. He wanted to devise a system of education which, while providing various activities for the growth of the child, will be within the means of this country. It was also evident that English education had created a gulf between the educated and the uneducated, the classes and masses. Not only was manual labour shunned, but the man, who worked with his hands and produced wealth by dint of his labour, was relegated to the lowest social order.

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[1] T. S. Avinashlingam. *Understanding Basic Education.* Delhi, Manager of Publications, 1954. p. 1.

Gandhiji must have pondered over these problems for many decades, prior to the formulation of his educational scheme. He fully realised that our political and social degradation, our poverty and subjection can be directly traced to such a type of mental and social degradation.[1] He, therefore, found it necessary to create a new type of society in which the difference between the classes and masses would disappear, in which everybody would work through his own hands. Thus he found manual work to be the basic foundation of social structure of a good life.

In the meanwhile a small article appeared in the Harijan, which introduced "one of the greatest revolutions in education."[2] While discussing the economics of prohibition, Gandhiji said in this article:

> As a nation we are so backward in education that we cannot hope to fulfil our obligations to the nation in this respect in a given time during this generation, if this programme is to depend on money. I have therefore made bold, even at the risk of losing a reputation for constructive ability, to suggest that education should be self-supporting. By education I mean an all-round drawing out of the best in child and man — body, mind and spirit. Literacy is not the end of education nor even the beginning. It is only one of the means whereby man and woman can be educated. Literacy in itself is no education. I would therefore begin the child's education by teaching it a useful handicraft and enabling it to produce from the moment it begins its training. Thus every

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[1] *Ibid.*, p. 3.

[2] E. W. Aryanayakam. *The Story of Twelve Years*. Sevagram, Hindustani Talimi Sangh, n. d. p. 1.

> school can be made self-supporting, the condition being that the State takes over the manufacture of these schools.
>
> I hold that the highest development of the mind and the soul is possible under such a system of education. Only every handicraft has to be taught not mere mechanically as is done today, but scientifically, i.e., the child should know the why and wherefore of every process.[1]

Gandhiji's ideas on education met with stubborn opposition. He was accused of neglect of literacy. "There is nothing in what has been said to warrant such a belief," Gandhiji emphasised, "for, have I not contended that the children in the schools of my conception will receive every instruction through the handicrafts they may be taught!"[2]

THE ALL-INDIA NATIONAL EDUCATION CONFERENCE, WARDHA

INTRODUCTION. — In the meanwhile, an important educational conference was summoned at Wardha in October, 1937. It consisted of national workers in the field of education, including education ministers of different provinces. After the preliminary general discussion, proceedings continued on the following propositions originally formulated by Gandhiji:

> 1. The present system of education does not meet the requirements of the country in any shape or form. English, having been the medium of instruction in all the higher branches of learning, has created a permanent bar between the highly educated few and the uneducated many. It has prevented knowledge from percolating to the masses...Absence of vocational training has made the educated class almost unfit for productive work and harmed them physically. Money spent on primary education is a waste of expenditure inasmuch as what little is taught is soon forgotten and has little or no value in terms of villages or cities.

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[1] *Harijan*, July, 31, 1937.

[2] As quoted in D. G. Tendulkar. *Mahatma*, Vol. IV. Bombay, Times of India Press, 1952. p. 227.

2. The course of primary education should be extended at least to seven years and should inculcate the general knowledge gained up to the present matriculation standard less English and plus a substantial vocation.

3. For the all-round development of boys and girls all training should, as far as possible, be given through a profit yielding vocation. In other words, vocations should serve a double purpose — to enable the pupil to pay for his tuition through the products of his labour and at the same time to develop the whole man or woman in him or her, through the vocation learnt at school...

4. Higher education should be left to private enterprise and for meeting national requirements whether in the various industries, technical arts, belles-letters or fine arts. The State Universities should be purely examining bodies, self-supporting through the fees charged for examinations.[1]

After Gandhiji's spech and preliminary discussion, the Conference appointed a sub-committee to consider the new ideology of education put forward by him. The sub-committee formulated the following resolutions, which were later passed unanimously by the Conference:

1. That in the opinion of this Conference free and compulsory education be provided for seven years on a nation-wide scale.

2. That the medium of instruction be the mother-tongue.

3. That the Conference endorses the proposal made by Mahatma Gandhi that the process of education throughout this period should centre around some form of manual and productive work, and that all other abilities to be developed or training to be given should, as far as possible, be integrally related to the environment of the child.

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[1] Hindustani Talimi Sangh. *Educational Reconstruction*. 1950. pp. 30-31.

4. That the Conference expects that this system of education will be gradually able to cover the remuneration of teachers.[1]

The Conference then appointed a small committee of distinguished educationists under the chairmanship of Dr. Zakir Husain to prepare a draft syllabus. This committee submitted is report on December 2, 1937.

The draft of the report came up for discussion at the Haripura Session of the Indian National Congress in February, 1938, which accepted the Scheme as its official basis for educational reconstruction. The All-India National Education Board (Hindustani Talimi Sangh) with headquarters at Sevagram near Wardha was established in April, 1939 to give effect to the Scheme.

MAIN FEATURES OF ZAKIR HUSAIN REPORT. — Let us now examine the main features of the Report which are as follows: (1) A basic craft is to serve as the centre of instruction. The idea is not to teach some handicraft side by side with liberal education, but entire education is to be imparted through some industry or handicraft. In short, it is intended that the Basic craft should serve as the centre of a solar system and that other subjects should revolve planet-wise and receive their warmth and vigour from the central sun-craft. (2) The Scheme is to be self-supporting to the extent of covering teachers' salaries. It also aims at making pupils self-supporting after the completion of their course. (3) Manual labour is insisted on, so that every individual may learn to earn his living through it in later life. It is also considered to be non-violent, since it is not based on industrialisation and an individual does not snatch away the living of others with the help of the machine. (4) Instruction is closely coordinated with the child's life, i.e., his home and village, the rural crafts and occupations. (5) It also aims at training the future citizens of India to perform their duties and exercise their rights of citizenship in actual life through a scheme of social service in a cooperative community.

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[1] *Ibid*, p. 82.

The Report further discusses a plan of a seven-year (7-14) course of free and compulsory education. All subjects covered in the present matriculation syllabus of an Indian University or a Board, except English but including a vocation, are to be taught. The mother-tongue both as a cultural subject and as the medium of instruction occupies a prominent place.

The course comprises: (1) Basic craft — any *one* of these: (a) spinning and weaving; (b) carpentry; (c) fruit and vegetable gardening; (d) agriculture; (e) leather-work; (f) any other craft for which local and geographical conditions are favourable, and which is rich in educative possibilities; (2) a minimum knowledge of spinning and carding; (3) mother-tongue; (4) mathematics; (5) social studies (outline history of India, social and geographical environment, training for civic life); (6) general science; (7) artistic expression through music and drawing; and (8) Hindustani (in Urdu and Devnagari scripts).

A WIDER INTERPRETATION. — Immediately after the publication of the Zakir Husain Report, the Scheme was put into operation under official patronage in the major Congress provinces, viz., Bihar, Bombay, C. P., Orissa, and U. P. Numerous basic schools were started, some training centres for teachers and administrative officers were established, refresher courses were organised, and Boards of Basic Education under special officers were established in Bihar, Bombay, and Orissa.

In the meanwhile, Gandhiji gave a new interpretation to this Nai Talim or New Education. Soon after his coming out of his detention after the movement of 1942, he declared:

> I have been thinking hard during the detention over the possibilities of Nai Talim until my mind became restive. We must not rest content with our present achievements. We must participate in the homes of the children. We must educate their parents. Basic education must become literally education for life.[1]

Thus began the second chapter in the history of Nai Talim. It became necessary to extend the scope of basic education so as to include "the education of everybody at every stage of life."[2] A conference of national workers in education was further called at Sevagram in January 1945 to review the whole situation with regard to basic education and to plan the future programme. The conference was opened by Gandhiji with the following words:

> Our field is not merely the child of seven to fourteen years of age, the field of Nai Talim stretches from the hour of conception in the mother's womb to the hour of death.

The conference then appointed four committees to prepare and revise schemes of education for four stages of life, viz., (1) Adult Education for the education of men and women in all stages of life; (2) Pre-basic or the education of children under 7; (3) Basic or the education of children from 7 to 14; and (4) Post-basic or the education of those adolescents, who have completed basic education. Soon after Gandhiji's death, the Nai Talim workers took the following pledge at the Basic Education Conference held at Bikram:

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[1] As quoted by Aryanayakam, *op. cit.*, p. 5.

[2] *Ibid.*, p. 6.

1. To breathe into education the spirit of truth and non-violence;

2. To combine handicraft, the natural environment, and the life of society as integral parts of education;

3. To teach the true love of country and human sympathy, and to eliminate communal prejudice;

4. To arrange for suitable programmes of Nai Talim for every stage of life from childhood to old age; and

5. To prepare children and adults for a society in which co-operation shall take the place of competition, and justice of exploitation, where freedom shall go hand in hand with responsibility, and material with moral progress.

STAGES OF NAI TALIM

Let us now examine the details of the four stages of basic education.

ADULT EDUCATION. — It is held that if Nai Talim is to be effective, it must begin not with the children but with the parents and the community. The first stage in Nai Talim is therefore adult education, that is the education of the community as a whole, and of every individual member, for a happy, healthy, clean and self-reliant life.

PRE-BASIC (*Purva-Buniyadi*). — The second stage is that of pre-basic or the education of children under seven. As soon as the child is independent of the mother and is able to walk to the school, the sphere of educational process is extended from the home to the school. Pre-basic education, therefore, in the fullest sense, is the education of children under seven for a development of all their faculties, conducted by the school teachers in cooperation with the parents and the community in schools, in the home and in the village.[1]

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[1] Hindustani Talimi Sangh. *Basic National Education. op. cit.*, pp. IX-X.

BASIC EDUCATION (*Buniyadi Talim*). — The basic education, i.e., the education of boys and girls between the seventh and the fourteenth year, grows out of the roots of pre-basic and adult education in the village. The original syllabus, prepared by the Zakir Husain Committee, has also been revised. It plans a complete educational programme of eight years on the basis of experience of work with children and adults in the villages for about ten years. The programme is planned round the following main activities:

> 1. Essential knowledge, habits, attitudes and skills, necessary for clean and healthy living (individual and social)....
>
> 2. Training in citizenship — practical and theoretical — at home, at school, in village, country and the world — including studies in history, geography, civics and elements of sociology and economics;
>
> 3. Capacity for self-sufficiency in food, cloth, and for shelter....
>
> 4. *One* of the following Basic Crafts: agriculture and gardening, spinning and weaving, wood-work, house building and repair; and
>
> 5. General science and mathematics.

The Assessment Committee on Basic Education[1] has recently suggested that English should be offered as an optional subject from the sixth grade, where knowledge of English is considered necessary for entrance to high schools and similar other institutions. Hindi should be made compulsory in the senior basic grade, where it is not the regional language.

So far as the building of an eight-grade basic school is concerned, it is held that there should be five class-rooms — each of not less than 600 square feet. The remaining classes can meet in the open. The school should have further a library-c :m-reading room of about 600 square feet and an office for the headmaster, a staff-room and an exhibition room, the last not less than 360 square feet. Provision should also be made for an assembly hall, with an area of 1,000 square feet.

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[1] *Infra*, p. 47.

Regarding staff, it is suggested that such an institution needs eight teachers including the headmaster. Post-basic education and a diploma in basic teaching should be the minimum qualification of a teacher. The strength of a class should not be more than 30 children. Some of the suggested important activities of the school are: (1) collective cleaning, (2) improvement and protection of health, (3) community mess, (4) craft activities, (5) cultural activities, (6) publication of school paper, (7) self-study, (8) location chart and (9) the organization of *gram raksha dal*.

The daily programme of a residential basic school where the teachers and pupils live like members of a single family should cover over 24 hours a day. A non-residential basic school should work from 7 a.m. to 11 a.m. in the morning and 3 p.m. to 5 p.m. in the evening. A basic school is further expected to maintain the following records:

1. *Teachers' Records:* (1) Annual plan, (2) monthly plan, (3) daily lesson notes, (4) monthly progress, (5) collective record of crafts, (6) individual crafts diary, (7) notes from self-study, and (8) record of social activities.
2. *Pupils' Records:* (1) Diary plan, (2) record of daily progress, (3) record of crafts, (4) notes from self-study, and (5) progress record.
3. *School Records:* (1) Enrolment Register, (2) Attendance Register, (3) Stock Book, (4) Order Book, (5) Record relating to different crafts, (6) Record of Evaluation of Progress, (7) Sales Department Register, (8) Stock Book, Catalogue and Issue Book for Library, Disbursement of Pay, etc.[1]

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[1] Dwarika Singh. 'Organisation of Basic School.' *Handbook for Teachers of Basic Schools*. Delhi, Manager of Publications, 1956. Ch. III.

POST-BASIC (*Uttar Buniyadi*) EDUCATION. — This stage is to be conceived as the educational nurture of the adolescent youth from the fifteenth to the eighteenth year of life. The Post-Basic Sub-Committee, appointed by the Hindustani Talimi Sangh, accepted the following as the objectives of post-basic education:

1. Post-basic education, like basic education, should be based on the principle of education through craft.
2. The course should be complete in itself.
3. The objective of post-basic education should be the same as that of basic education, as regards the all-round development of the student both as an individual and as a useful member of society.
4. The courses of study should be diversified so as to suit pupils of different aptitudes.
5. The medium of instruction should be the language prevalent in the locality, where the institution of post-basic education is situated.
6. The duration of the course should differ for various courses, in accordance with the requirements of each course, but should be in general between three to four years.
7. Education at post-basic stage should be so organised as to enable the pupils to earn the cost of maintaining themselves during the training period.[1]

Turning to the consideration of full time post-basic education, the Sub-Committee suggested fourteen types of work in which adolescents might specialise, according to individual aptitude and interest. These are: agriculture, medicine, engineering, mechanical arts, commerce, artisanship, electricity, teaching, journalism, printing, fine arts, home economics, mettallurgy, industries.[1] It should also be realised that the aim of self-sufficiency at the post-basic stage is, not like the basic stage, to meet the current expenses of the school salaries and contingencies. Shri Vinoba Bhave described basic education as education for self-sufficiency, and post-basic education as education through self-sufficiency. He holds that by the end of the basic school course a boy ought to possess the knowledge to support himself; at the post-basic stage he has to use that skill and knowledge to earn his own keep and to continue his education without being any burden on his parents or on society.[2] This will be clear from the following description of a post-basic school given by Shri Ram Kishore, an ex-secretary of the Hindustani Talimi Sangh:

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[1] Marjorie Sykes, ed. *A Picture and Programme of Post-Basic Education.* Sevagram, Hindustani Talimi Sangh, 1954. pp. 21-22.

> The post-basic school is a 'school-village,' a society of students and teachers living together in residence, and its aim is therefore to provide by its own work the food and clothing needs of all its members, not to accumulate earnings on a money basis.[3]

Since 1950, there has been much discussion about the place and nature of university work in Basic National Education. The Indian University Education Commission's Report, 1949, has included an important chapter on the "Rural University." At the Seventh All-India Basic Education Conference in 1951, the subject of university education (*Uttam Buniyadi*) had an important place. Following the conference, the Hindustani Talimi Sangh appointed a Higher Education Sub-Committee which worked out a scheme for the initial stages of a *vishvavidyalaya* (university) at Sevagram.

The Committee selected seven activity faculties, viz., agriculture and horticulture, animal husbandry and dairying, rural engineering, rural industries, rural public health and nutrition, rural technology, and rural education. It also framed working syllabi of these branches of learning, which were approved by the Talimi Sangh.

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[1] *Ibid.*, p. 18.

[2] *Ibid.*, p. 7.

[3] Ram Kishore, "After Fifteen Years", *Modern Review*, *March*, 1955. pp. 228-229.

Eighteen students were selected in November, 1952, for admission to the Sevagram *vishvavidyalaya*. The majority selected agriculture or animal husbandry, and a few selected engineering or public health. Then came Shri Vinoba Bhave's call to youths to devote a period of time to the work of Bhoodan. The students eagerly responded to this call, and Vinobaji's Bhoodan pilgrimage is a travelling village university. Its studies are carried on in new villages everyday.

The Hindustani Talimi Sangh has, therefore, recognized that the Gramdan movement is essentially a Nai Talim programme. At its meeting on January 18, 1957, the Sangh passed the following resolution:

> The Bhoodan work of Shri Vinoba has now taken the form of Gramdan, and the time has come when, through this programme, the non-violent social revolution may be brought to pass. A non-violent revolution cannot be brought about by the power of the State, but it can come about through education. It is, therefore, the duty of the Hindustani Talimi Sangh to give every possible support to this revolution.

The *gramdan* movement has also brought into the forefront the need for organizing a *shantisena* or peace army. The idea originated with Gandhiji some thirty years ago. He conceived a *shantisena* as a highly disciplined non-violent army ready at all times for work of service and of reconciliation, prepared to enter areas of tension and potential violence as an unarmed force for peace. During the last few years Vinobaji has been challenging us to make a fresh approach to this idea, and to prepare ourselves for this non-violent discipline. He regards the discipline of the *shantisena* as an essential part of the training of the nation for Swaraj (*gramswaraj*) and therefore as a responsibility of the teacher. He says:

> A society freed from the yoke of authority means a society yoked to education....In non-violence, education and defence are one and the same.

There are, however, several basic teachers colleges imparting teacher education programmes at post-graduate level. Realising the need for research in basic education, the Indian Ministry of Education has set up the National Institute of Basic Education in Delhi in 1956 so as to help the development and expansion of Basic education on sound lines. The Institute is now a part of the National Council for Educational Research and Training. It is conducting research on problems relating to Basic education including training of workers at high levels such as inspectors, administrators, and supervisors. Based on the recommendations of the Committee on Higher Education for Rural Areas, the Government of India. has also established a number of rural institutes.[1]

BASIC EDUCATION AND THE GOVERNMENT

KHER COMMITTEES. — Hardly had the Zakir Husain Report seen the light of the day, when the CABE appointed a committee under the chairmanship of the Hon'ble Shri B. G. Kher, the then Chief Minister in charge of Education, Government of Bombay, to examine the Wardha Scheme. It accepted the central principle of the Wardha Scheme, i.e., education of children through a purposeful creative activity. The main recommendations of the Committee were:

1. The scheme of basic education should first be introduced in rural areas.
2. The age range of compulsion should be six to fourteen years, but children can be admitted to the basic school at the age of five.

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[1] *Infra*. Ch. VI.

3. Diversion of students from the basic school to other kinds of schools should be allowed after the 5th class or about at the age of eleven *plus*.

4. The medium of instruction should be the vernacular of the pupils.

5. No external examinations need be held. At the end of the basic course, a leaving certificate based on an internal examination should be given.[1]

These recommendations were generally accepted, and another committee under the same chairman was appointed to coordinate the basic system with higher education. This Committee recommended that:

1. Basic education should comprise a course of eight years from the age of 6 to 14 years and that this course while preserving its essential unity should consist of two stages — the first stage, "junior" stage covering a period of 5 years and the second stage, the "senior", 3 years.

2. The transfer of children from the basic school to other forms of post-primary education should be allowed after the fifth grade, i.e., at the conclusion of the "junior basic" stage.[2]

BASIC EDUCATION AND THE SARGENT REPORT. — The CABE considered reports of both the sub-committees in details in May, 1940, and adopted most of their conclusions and recommendations. In the meanwhile, a committee consisting of experts in education was appointed by the Central Government under the chairmanship of Sir John Sargent, the Educational Adviser to the Government of India, to draw up a post-war development plan for education. The committee went through all the relevant material and recommendations of the Kher committees very carefully and approved basic system of education as the national system of education. The report of the committee, published in 1944, is popularly known as the Sargent Scheme. It was generally approved by the Central and State Governments.

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[1] *Report of the Committee of the C.A.B.E. appointed to consider the Wardha Scheme of Education.* Delhi, Manager of Publications, 1939. p. 12.

[2] *Report of the Second Wardha Education Committee of C.A.B.E. 1939, together with the Directions of the Board Thereon.* Delhi, Manager of Publications, 1940. p. 7.

RECENT COMMITTEES. — At their 22nd meeting, the CABE established a separate advisory committee on basic education. The committee was required to study the problems of basic education and to advise the Central and State Governments regarding the ways and means by which the spread of basic education throughout India might be facilitated.

The Government of India also appointed an assessment committee in 1955 to make an 'on the spot' survey and enquiry about the devlopment of basic education in the country. The main recommendations of the Committee are given below:

1. The establishment of Post-Graduate Basic Colleges at States level and their recognition by universities.
2. The setting up of a Central Research Institute for Basic Education under proper direction.
3. The setting up of a small special committee of educational experts, in close touch with the problems of basic education, to lay down the criteria to evaluate the achievements and progress of pupils in basic institutions and also assess, from time to time, the criteria thus formulated.
4. The bringing together of various official and non-official agencies engaged in village reconstruction so that these and Education Departments could co-operate for the development of basic education.

5. Clear and unambiguous declaration of policy being made by the State Governments that all elementary schools will be converted into basic schools and all teachers training schools at this level will become basic teachers training institutions within reasonable time.

6. Guaranteeing the proper dovetailing of Basic Education with Secondary Education in such a manner that equal number of years in different types of institutions would be considered as of equal value for admission to higher education.

7. Appointment without hesitation of traditional craftsmen with highly developed skill, even without acacemic qualifications, and close association of a trained basic teacher with such craftsmen for teaching the craft.

THE PRESENT POSITION. — A large portion of the work of Nai Talim today is being done by Government Education Departments or in institutions, which depend on Government for recognition and aid. The Central and State Governments have already accepted that education of all children of 6-14 should be of the basic type — junior and senior. The programme for the conversion of the existing elementary schools into basic ones, the opening of new basic schools, the introduction of crafts into non-basic schools, the production of literature on basic education, and the training of basic school teachers are progressively being carried out.

The progress achieved since 1950-51 in the conversion of elementary school into basic schools and the targets set out for the Third Plan are indicated in Table 9.

TABLE 9*

Progress of Basic Education, 1950-51 to 1965-66

Year	No. of Jr. B. Schools	Jr. B. Schools as percentage of total No. of primary schools	No. of Sr. Basic Schools	Sr. B. Schools as percentage of total No. of middle schools	No. of Basic Tr. Schools	Basic Tr. Schools as percentage of total No. of Tr. schools
1	2	3	4	5	6	7
1950–51	33,379	15·9	388	2·9	114	15·0
1951–52	33,751	15·7	454	3·1	—	—
1952–53	34,223	15·4	655	4·3	—	—
1953–54	34,940	14·6	865	5·3	—	—
1954–55	37,395	14·2	1,120	6·5	—	—
1955–56	42,971	15·4	4,482	22·2	520	55·9
1956–57	46,881	16·3	6,897	28·2	581	63·4
1957–58	52,039	17·4	7,819	28·9	594	65·9
1958–59	57,069	18·9	8,659	21·9	679	69·7
1959–60	61,757	19·4	13,554	32·3	742	76·8
1960–61 (Estimated)	62,591	18·3	14,268	32·9	1,002	76·6
1965–66 (Targets)	1,08,591	26·1	18,006	31·6	1,176	82·6

* Government of India. *Programmes of Educational Developments* (1961-66). Unpublished. p. 25.

From the above table, it will be clear that except in the field of training of elementary teachers, basic education has not made much headway. It is also disappointing to note that the percentage of senior basic schools in 1965-66 will be less than in 1960-61.

Work in post-basic education has also been going on for more than fifteen years. But it is found that the boys passing out of post-basic schools are not able to get admission into universities for higher education. In 1956, the Standing Committee on Basic Education of the CABE passed a resolution:

> Post-basic schools should be regarded as an integral part of the secondary education system and that Boards of Secondary Education should evolve an examination suitable for post-basic schools. On the result of this examination successful candidates should receive certificates identical with those awarded to candidates who successfully complete the higher secondary course.

The Indian Ministry of Education brought these recommendation to the notice of State Governments, Universities, Inter-University Board and the U.G.C. for implementation and comments. In 1958-59, the Ministry further initiated a scheme by which financial assistance was made available to voluntary organizations as well as State Governments to enable them to start basic schools at the post-basic or secondary level, to improve the existing post-basic schools and to upgrade the existing senior basic schools to post-basic schools. The quantum of Central assistance under this scheme was 60 per cent in case of voluntary organisations and 100 per cent in case of State Governments.[1] But with all these efforts, the total number of post-basic schools in the country is less than forty at present. Thus basic education has not made much headway. The pace of expansion is slow.

APRAISAL OF NAI TALIM

SOME CHARGES. — The original Wardha Scheme has been widely discussed and criticised, and it will be really helpful to consider some of these criticisms. Let us first examine its self-supporting aspect. It is held that the Scheme turns a school into a centre of a cottage industry, where the teacher depends directly on the earnings of his pupils. It is feared that this novel situation will have a demoralising effect on the entire educational organisation — the teacher looking upon his pupil as a bread-earning proposition, the student becoming a money-earning tool and the spininng-wheel proving more deadly than school examinations. It is also pointed out that vocational education is expensive, that expenditure on craft-work is always greater than the return and that the produce of children cannot compete with finished goods in the market.

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[1] *Education in India, 1958-59.* Vol. I. Delhi, Manager of Publications, 1962. p. 73.

There is enough truth in these arguments. The Sargent Report while accepting some of the fundamental principles of the Wardha Scheme remarked, "Education at any stage and particularly at the lowest stage cannot or should not be expected to pay for itself through the sale of articles produced by the pupils."[1] Even Gandhiji had to modify his original idea. Later on, he stipulated that children's earnings should, in due course, cover the recurring expenditure on teachers' salaries, all other recurring and non-recurring expenses being, of course, met by the State. The Zakir Husain Committee which subsequently examined the question more carefully, observed, "We consider the scheme of basic education to be sound in itself. Even if it is not self-supporting in any sense, it should be accepted as a matter of sound educational policy and as an urgent measure of national reconstruction."[2] Even quite recently, Dr. Zakir Husain while addressing the Basic Education Conference at Turki in 1957 drew a distinction between economically productive and educationally productive work and said, "Education is possible only through educationally productive work which is essentially the work of the mind, be it accompanied by manual work or not." All that is now expected is that the craft work that the child will produce will be marketable. It should always be borne in mind that Gandhiji had to stress the self-supporting aspect of the Scheme, since he wanted to find out a solution to the problem of introducing compulsory primary education for all children of school-going age, which was not recognised as its duty by the British Government in this country.

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[1] Government of India. *Educational Development in India*. Delhi, Manager of Publications, 1944. p. 8. Hereafter cited as '*Sargent Report*.'

[2] Hindustani Talimi Sangh. *Educational Recontruction. op. cit.* p. 96.

Another great complaint is that instruction in this system of education is craft-centred. Several questions are asked in this connection. Can the basic craft develop the whole man and give him a suitable liberal education? Is there a proper balance between vocational and intellectual education in the system? Can the basic craft serve as the basis of entire instruction? So far as the first problem is concerned, we would request the critics to cast a glance at the prescribed course of the Wardha Scheme.[1] It includes a number of cultural studies to make a student not only a good crafts-man but an intelligent and patriotic citizen too. He learns his own and the national language, the history of his people and nation, government of his country, the meaning of democracy, and his school and its environment. In fact, there is every likelihood of his being educated in a more natural way than is ever possible under the existing educational system of the country.

The second doubt arises mainly from the fact that the daily time-table of the Scheme is misleading. Out of 5½ hours' daily work, 3 hours and 20 minutes have been allotted to craft work as against two hours to intellectual training. The following extract from the Zakir Husain Committee's Second Report will be an effective reply to the critics:

> Much criticism has been directed against the amount of time devoted to craft work, and it has been argued that academic work will be starved in consequence. Without subscribing to the implied dualism between practical and academic work, we would point out that the time allotted to the basic craft is not meant to be spent only on the mechanical practice of the craft but

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[1] *Supra*, p. 36.

oral work, drawing and expression work naturally connected with it, as well as instruction in the why and wherefore of the processes involved, i.e., their scientific and intelligent understanding, which is one important educative aspect of the craft, will also be given during this time.[1]

So far one may agree, but the teaching of all subjects in all aspects through the basic craft is neither natural nor practical even at the early stage of education. Correlation of studies within reasonable limits is educationally sound, but it should not be pushed to extremes. Practical experience has shown that the teaching of general subjects through a craft makes knowledge superficial and barren. General subjects can never be handled properly through a narrowed down medium.

The framers of the Scheme very soon realised this drawback and they rectified the mistake within a very short time. One of the most important findings of the Poona Conference was, "This correlation should not, however, be unnecessarily forced and teaching should be correlated not only to the basic craft but also to the child's physical and social environment."[2] Later, the conference at Jamianagar reiterated this finding and observed "that correlation should not be forced and pedantic."[3]

The Handbook for Teachers of Basic Schools, recently published by the Ministry of Education, throws a flood of light on the methodology of basic education and has removed many misunderstandings about correlation. It has pointed out that basic curriculum is an "activity curriculum", and that instead of introducing a large number of isolated subjects, it seeks to combine those which naturally "belong together" into a field of knowledge. Basic education further stresses the necessity of making all educational activities centre round concrete situations of life, especially those related to productive life. Thus while selecting a basic craft for a school, one should bear in mind the educational possibilities in it as well as its importance in the life of the community.[1] Illustration 3 indicates an activity-centred programme. It illustrates how purposeful activities can provide opportunities to children for the study of their nearest environment. It also indicates how correlation need not be confined to a craft alone.

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[1] Hindustani Talimi Sangh. *Educational Reconstruction. op. cit.* p. 132.

[2] Hindustani Talimi Sangh. *One Step Forward*, Sevagram. 1940. p. 219.

[3] Hindustani Talimi Sangh. *Two Years of Work*, Sevagram. 1948. p. 232.

The Assessment Committee on Basic Education has disapproved of the truncation of the craft. It holds that any craft for basic education must be a whole craft and not split into pieces, and that the technique of correlated work had largely remained incomplete because the correlation so far had mostly been with productive work and very little with social and physical environment.

Besides these charges it is also argued that the Wardha Scheme ties down the child to a specific vocation at a premature age before his tastes and aptitudes can be ascertained. Instead of unfolding his personality, such a type of specialisation hampers his normal development. This has been considered "spiritually harmful to the child."[2]

MERITS. — These are the main points of criticism against the Scheme. It may be realised that every scheme has its own short-comings, and one may not agree with some details of the Scheme. But taken as a whole, it has many commendable features. In outlining the Scheme, Gandhiji was keenly alive to the manifold problems of our social, cultural,

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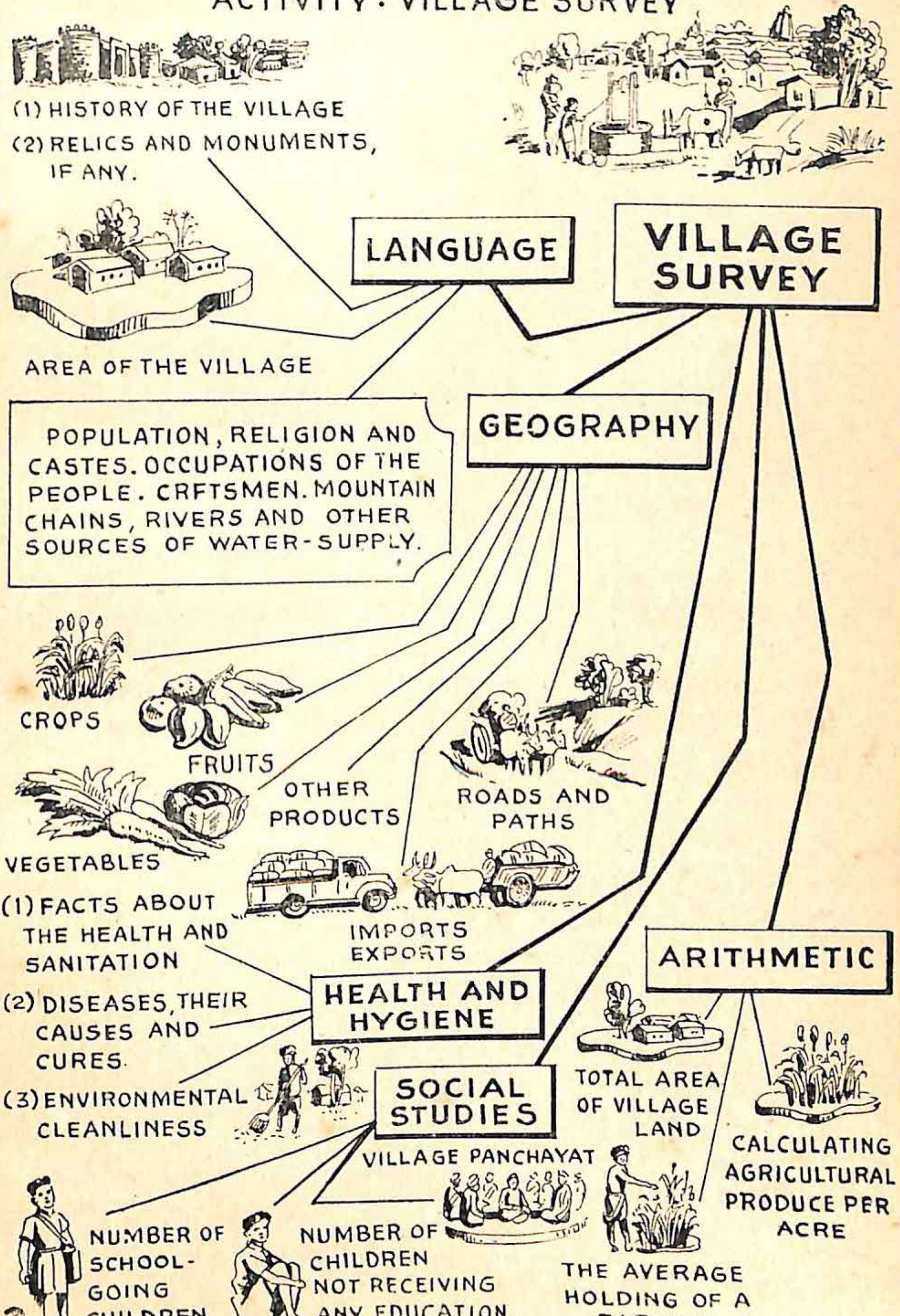
[1] *Handbook for Teachers of Basic Schools*. Ministry of Education, New Delhi, 1956. pp. 20-24.

[2] National Planning Committee, *Education* (Report of the Sub-committee on Technical Education). Bombay, Vora & Co., 1938. p. 151.

-ILLUSTRATION 3

CORRELATION IN BASIC EDUCATION

ACTIVITY: VILLAGE SURVEY


(1) HISTORY OF THE VILLAGE
(2) RELICS AND MONUMENTS, IF ANY.
LANGUAGE
VILLAGE SURVEY
AREA OF THE VILLAGE
POPULATION, RELIGION AND CASTES. OCCUPATIONS OF THE PEOPLE. CRFTSMEN. MOUNTAIN CHAINS, RIVERS AND OTHER SOURCES OF WATER-SUPPLY.
GEOGRAPHY
CROPS
FRUITS
VEGETABLES
OTHER PRODUCTS
ROADS AND PATHS
IMPORTS EXPORTS
(1) FACTS ABOUT THE HEALTH AND SANITATION
(2) DISEASES, THEIR CAUSES AND CURES.
(3) ENVIRONMENTAL CLEANLINESS
HEALTH AND HYGIENE
ARITHMETIC
TOTAL AREA OF VILLAGE LAND
CALCULATING AGRICULTURAL PRODUCE PER ACRE
SOCIAL STUDIES
VILLAGE PANCHAYAT
NUMBER OF SCHOOL-GOING CHILDREN
NUMBER OF CHILDREN NOT RECEIVING ANY EDUCATION.
THE AVERAGE HOLDING OF A FARMER

political and economic life — gruelling poverty and unemployment, the ruin of Indian villages, the ever-increasing gulf between the urban and rural areas as well as between the educated few and the illiterate many. At the same time, he fully realised that our programmes of national reconstruction are likely to be wrecked on the rock of illiteracy and ignorance.

These problems prompted Gandhiji to plan out this novel scheme of education, which has provided a plan for a continuous seven years' compulsory eudcation for the first time in India. Gandhiji was also aware of the main drawbacks of the prevalent educational system of the country. It is not creative and has failed to unfold the child's personality. It is too bookish and gives a mere superficial knowledge. Nai Talim is child-centred education, and the child earns through activity.

The new education further proposes to reconstruct our socio-economic life and aims at breaking down the barriers of prejudices dividing the intellectual and manual workers. It also helps the rich and intellectual classes to appreciate the dignity of labour and manual work. Economically, it aims at rural reconstruction and silent industrial revolution, and proposes to solve the problem of unemployment. At the same time, it provides the right kind of education to children — education to fit them for life, education suited to their environment and hereditary occupations. The curriculum is based on a proper understanding of child nature. Instruction is not passive, and the child learns through a productive craft. He is relieved of the tyranny of purely academic and theoretical instruction. The education that he gets is related to environment and actual needs of life. The curriculum is sufficiently broad in outlook and gives that cultural background which a young citizen in Free India needs most.

have ossified after Gandhiji, the concept of basic education too has suffered from retarded growth. But Gandhiji's disciples have not the courage to declare that and to modify the scheme to suit modern needs. Everything that Gandhiji did or said was immediately given a sacred significance and taken out of the field of rational or pragmatic consideration. They are not able to get out of the hypnotic spell and to declare openly that the scheme requires modifications. Had Gandhiji lived today, he would have changed his mind. As Dr. M. Mujeeb pointed out:

> But the genuine basic school remained the ideal of a few educationists; those who had the means sent their children to English-medium schools while propagating basic education. The high schools refused to admit children from post-basic schools, because their academic attainments were low. This made the rural population aware that the basic school was regarded as something good enough for the village but not good enough for further education.[1]

The real reason for the failure of basic education is that it is self-contained and self-sufficient. The Assessment Committee on Basic Education has defined what a basic school is. The Committee has pointed out, "No school may be considered a Basic school or assessed as such, unless....it provides for an integrated course of eight years of Basic education, and where there are only what are called the Junior five grades, such a school should necessarily be the feeder for a Senior Basic school."[2]

The eight-year basic school will always remain a dream, because the majority of elementary school children will join a secondary school rather than a senior or post-basic school. Under the circumstances, basic education cannot thrive as a national system of education.

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[1] *The Illustrated Weekly of India*, August 18, 1963. p. 12.

[2] *Report of the Assessment Committee on Basic Education*, *op. cit.*, p. 68.

At the same time, basic education as it is prevalent today in this country cannot prosper as a superior system of education unless it is improved. The Assessment Committee has pointed out several weak spots. The existing arrangement of conducting the system is isolated; if compact, geographical areas have retarded expansion; equipment and accommodation have not always been adequate; the technique of correlation which is the heart of the system is not often fully understood, and therefore becomes unreal and fantastic; craft-work is truncated long before it reaches its logical and psychological goal; and in-service and pre-service teacher-training programmes specially in crafts are not properly carried out.[1]

In addition to the removal of defects enunciated above, future efforts in the field of basic education should be directed to the provision of an adequate supply of teachers trained in the methodology of basic education, in-service training programmes for non-baisc teachers, orientation programmes to turn the existing non-basic primary schools in the direction of the basic system, and adequate craft equipment and accommodation. But basic education will not thrive, unless universal education for the age-group 6 to 14 is of basic type. It is also necessary that the fundamental characteristics of basic education are defined and elucidated as often as necessary.

CONCLUSION

These are the main developments in basic education movement during a short period of three decades. As one of the latest official report observes:

> The experience of the States in respect of the quality of education after the introduction of the basic system has not been uniform. While the superiority of basic over the old system is admitted by almost everyone, results have not always been commensurate with the hopes entertained about the system. . . .

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[1] *Ibid.*, pp. 21-23.

The attitude of the people towards basic education also varies from place to place. In Bihar where the attempt has been attended by a large measure of success, the people are sympathetic to the scheme and show by their enthusiasm that they welcome the new system. This is largely true of Madras, Bombay and also of some of the Tribal Areas. In other States, the experience has been less happy. In some cases, the introduction of basic education appears to have met with resistance from the people and the teaching profession. In such areas, instead of improving the quality of instruction, basic education has sometimes led to a lowering of standards in reading, writing and arithmetic.[1]

Thus basic education has not in all cases had the desired result. "Even in Bihar", as a writer mentions quite recently, "....the masses have not much liking left for it."[2] There are several reasons which are responsible for the growing unpopularity of the Nai Talim. Firstly, there is a good deal of confusion about the nature of basic education. There is no clear understanding and appreciation of the methods and materials to be used or of the fundamental approach to be adopted, and basic education is interpreted and developed on different lines in different States. As an official report remarks:

> The differences would be quite in order and would, indeed, be welcome if they were the result of carefully though-out experiments but, as it actaully happens, they are often due to basic misconceptions about the nature of the new education. In some places, for example, schools are described as basic merely because they have included some kind of craft work—generally spinning—in their programmes. Some others confuse the principle of craft correlation with establishing a kind of mechanical and artificial association between academic work and

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[1] *Progress of Education in India*, 1947-52. p. 27.

[2] Mazumdar, D., "Nai Talim in the Crucible", *Modern Review*, April, 1955. p. 312.

some craft materials or processes. In some basic schools, there are no adequately trained basic teachers and there are even basic schools that have hardly any trained teachers at all. The teachers possess neither sufficient theoretical understanding of the basis of the scheme, nor a command of its teaching techniques, nor sufficient skill in the craft to be taught to ensure reasonably high standards of efficiency in the students.[1]

At the same time, basic education is truly a silent social revolution. It wants that every individual should merge his individuality for the common good. It aims at producing a classless, non-violent social order, in which the last receives consideration first and the self comes last. It thus wants to revolutionise the entire outlook towards life. Many are afraid of the new values set up by Nai Talim. And hence it has opponents. But when day has dawned, they cannot shut out the light by merely refusing to open the window. It streams in through every crevice and cranny, and a new philosophy of life is even more than daylight; for, when the windows are shut, it percolates through them.

We conclude in the words of Shri Vinoba Bhave:

> Nai Talim means the setting up of new values. The old education taught us that thieving is sinful; the new education teaches that not only thieving, but the amassing of material wealth is sinful also. The old education makes a distinction between physical and mental labour; the new education not only regards both as of equal value, it relates the one to the other and integrates them into one whole. The old education honours efficiency for its own sake; the new education makes efficiency the servant of equality. The old education pays homage to Lakshmi, Shakti, Saraswati; the new education pays homage to humanity, and values these three—wealth, power and knowledge—only as instruments of service.[2]

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[1] *The Five Year Plan, Scheme of Educational Development*, *op. cit.* pp. 2-3.

[2] As quoted in Sykes, ed., *op. cit.*, p. 90.

CHAPTER FOUR

PRIMARY EDUCATION

BACKGROUND

INDIGENOUS EDUCATION. — When the British occupied this country, the government found a more or less wide-spread system of indigenous education. It was, in fact, a well-developed national system consisting of both higher and elementary institutions. These institutions had been in existence from times immemorial and they had been woven in the texture of the social and cultural life of the people. It should be realised that during Pre-British days an Indian village was a self-sufficient unit and most villages had their own schools.

William Adam, a missionary of considerable experience, estimated in 1835 that Bengal and Bihar had 100,000 schools, i.e., roughly two schools for every three villages and that there was a school for every 400 persons.[1] Official inquiries made during the first half of the nineteenth century showed that in Madras, the ratio of the attendance of boys in schools to the male population was 1 to 34, and that the corresponding figures for Bengal and Bombay were 1 to 36, and 1 to 62 respectively. The percentage of literacy was 6·1 per cent. in Bengal, and it may be presumed to be the same for India as a whole.[2]

The syllabus of the elementary schools was not very ambitious and comprised only the three R's and accounts. The schools sadly lacked in teaching aids and material for teaching and learning. The common schools were single-teacher institutions, many teachers were inefficient, methods of teaching were obsolete, text-books were unsuitable, discipline was slack but punishments were severe, hours of attendance were irregular, and holidays were numerous. Most of the schools were without buildings of their own, and the children used to meet in the houses of teachers or of the families that engaged them or in community buildings like the temple or the mosque. The teachers were poorly paid but were not worse off than their modern colleagues.[1]

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[1] A. N. Basu, ed. *Adam's Reports*. Calcutta University, 1941. pp. 6-7.

[2] K. G. Saiyidain, *et, al*. *Compulsory Education in India*. Paris, UNESCO, 1952. pp. 12-13.

ACTIVITIES OF THE CHRISTIAN MISSIONARIES. — The beginning of the present system of education in India can be attributed to the efforts of the Christian missionaries, who came to this country in the wake of European traders. Their earliest activities were confined mainly to elementary education and amongst the lower strata of people. Elementary schools were established and connected with every mission centre, which was set up in different parts of the country.

Whatever might have been the character of the early missionary schools in general, there is no doubt that they introduced a new educational system in this country. These are some of the most striking features of the early missionary schools:

1. Religious instruction according to the tenets of Christianity was made compulsory and the Bible was used as a class-book.
2. The curriculum was widened and included subjects like grammar, history and geography. Printed text-books were also introduced.
3. Classes were held regularly and at fixed hours. Sunday was declared a holiday.
4. A regular, clear-out class-system was introduced, since most of the schools had more than one teacher.

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[1] S. N. Mukerji. *History of Education in India*, (Modern Period). Baroda, Acharya Book Depot, 1961. pp. 44-45.

5. Instruction was imparted through the languages of the people.[1]

Thus by the beginning of the last century a new type of elementary education was introduced by the missionaries and it began to influence the educational system of the country.

ATTITUDE OF THE EAST INDIA COMPANY. — During the Company's regime, education was neglected and, in the early stages at least, it was definitely ignored. The Charter Act of 1813, passed by the British Parliament, directed the East India Company to accept responsibility for the education of the Indian people and to spend a sum of not less than one lakh of rupees a year for this purpose. But even this amount was not fully utilised for the next ten years. From 1824 onwards, small sums were annually spent on education, but obviously such expenditure could not go far to meet the educational needs of millions of people.

The Education Departments of 1854 advocated the extension of elementary education through the direct instrumentality of the State, as well as the encouragement of private schools through grant-in-aid. But compared to the magnitude of the problem, adequate funds were not forthcoming. As such the progress was slow and halting.

DEVELOPMENTS UNDER THE BRITISH CROWN (1857 to 1901-2). — Stanley's Despatch of 1859 admitted that it was apparently impossible to provide funds for a system of direct instruction and that it was necessary to levy a compulsory local rate for defraying the cost of primary education.

As a result of this recommendation, recourse was taken to local taxation. Since 1864 Local Cess Acts have been passed by different provinces, and as such primary education made great strides forward during the eleven years, 1870-71 to 1881-82. During this period, the management of State schools and the grant of State aid to private schools remained generally under the direct superintendence of government officials, although municipalities undertook a part of the work in the towns. This state of affairs was altered when the various Municipal and Local Board Acts were passed in 1883-84 in pursuance of Lord Ripon's Policy of Local Self-Government. Under these Acts the control of local bodies over local resources was greatly enlarged, and the Government divested itself more and more of the direct management of primary education, making over its schools to municipalities and district boards. But the progress of primary education was checked. The local bodies failed to show a crusading spirit for which they cannot be blamed, as they did not get proper financial aid from Government. The Indian Educational Policy of 1904 was forced to declare:

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[1] *Ibid.*, p. 54.

> It is commonly reckoned that fifteen per cent. of the population are of school-going age. . .but of these only a little more than one-sixth are actually receiving primary education. . .that the expansion of primary education has received a check during recent years. . .On a general view of the question the Government of India cannot avoid the conclusion that primary education has hitherto received insufficient attention and an inadequate share of the public funds.[1]

WHY SUCH A POOR PROGRESS? — Thus the progress of elementary education during the last century has been really disheartening, and it is mainly due to several mistaken policies. Firstly, the British Government crushed down the indigenous educational system, which had been in vogue in this country from times immemorial. The indigenous schools were no doubt inefficient, but they were giving some type of general education to the masses. During the second half of the 19th century while some of these schools were brought under the public system of education, the majority of them ceased to exist.

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[1] Government of India. *Indian Educational Policy*, Nos. 199-211. Calcutta, March 11, 1904, paras 15-18.

Owing to the disrupture of the village economic life during the British rule, the country-side was impoverished, the patrons of village schools disappeared and a large number of indigenous schools were starved and were ultimately closed down. Administrators and educationists like Munro, Elphinstone, Adam, Thomason and a host of others repeatedly advised the Government to build the public system of education on the basis of old indigenous system. But this advice remained as a mere advice. The State watched the steady decline of these poverty-stricken schools and did not spend a single pie to help them. Nothing was done to improve their character, and modern primary schools were established as their rivals. But while a net-work of indigenous schools was thus wiped out, hardly a few new schools were established to replace them.

Secondly, the East India Company adopted a new policy in education which is popularly known as the Filtration Theory. With a paltry sum of one lakh of rupees sanctioned by the Charter Act of 1813, the General Committee on Public Instruction set up in Calcutta in 1823 to implement the provision of the Act found it impossible to look to the needs of the masses. The Committee, therefore, decided that their immediate concern was to impart higher education and to educate the classes.

It was felt that if higher education is provided to the top classes, it will somehow or other "filter down to the masses." As Mayhew says:

> Education was to permeate the masses from above. Drop by drop from the Himalayas of Indian life useful information was to trickle downwards, forming in time a broad and stately stream to irrigate the thirsty plains.[1]

But what was intended to be the fountain head remained a stagnant pool. Education did not filter down from the higher classes to the masses.

Thirdly, the British Government neither recognised the principle of compulsory education nor acknowledged that it was the primary duty of the state to give free and compulsory education to all children of school-going age. The Report of the Indian Education Commission, 1883, covering more than 600 pages does not make a mention of compulsory education though the inquiry into primary education was kept in its forefront by the Government and in spite of the suggestion made by several Indian and European witnesses before the Commission for the adoption of a law for compulsory education. It is a wonder that such an idea was considered too utopian at a time when England itself had recognised the principle of compulsory education.

Besides these three educational factors stated above, the following three general policies also retarded the progress of elementary education during the nineteenth century:

1. A centralised policy and the neglect of rural India, where more than 80 per cent. of the Indian population live.
2. Neglect of Indian industries and the failure to raise the standard of the life of the people.
3. Neglect of education — the total expenditure on education in 1901-02, was only Rs. 10,278,659 or 0·88 per cent. of the total revenue of the country.[2]

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[1] Mayhew. *op. cit.*, p. 92.

[2] Saiyidain, *et al. op. cit.*, pp. 16-17.

THE MOVEMENT FOR COMPULSORY EDUCATION

Early Attempts

The earliest suggestion for introducing compulsory primary education was made by William Adam, who observed in 1838 that a law should be ultimately enacted compelling every village to maintain a school.[1] In 1852, Captain Wingate, the Revenue Survey Commissioner in the Province of Bombay, proposed to levy a cess of five per cent. on land revenue to utilise a part of its proceeds to give compulsory education to the sons of agriculturists.[2] Shortly afterwards in 1858, Mr. T. C Hope, the Educational Inspector of Gujarat, proposed that a law should be passed empowering the inhabitants of any local area to tax themselves for the establishment of schools.[3] In 1884, Shri Shastri, the Deputy Educational Inspector of Broach, suggested the introduction of compulsory primary education in his annual administrative report.

Agitation for Compulsion (1890-1918)

RISE OF NATIONALISM. — All the above suggestions were, however, considered premature. But with the enforcement of compulsory education in England in 1870, the strong objection that compulsory education was contrary to British jurisprudence gave way. In the meanwhile, the close contact with the West in the wake of the British rule aroused India from her intellectual stupor and re-awakened a free activity of the intellect which gradually spread to all subjects of human and national interests.[4] It brought in the modern Indian renaissance, and led to great changes in social, religious, political and economic life of the country. Education naturally formed an important element in all these activities and the political minded people began considering the development of education as a national need. Thus Swami Vivekananda, the Young Prophet of India, declared:

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[1] A. N. Basu, ed. *Adam's Reports, op. cit.*, p. 353.

[2] J. P. Naik. *History of Local Fund Cess (appropriated to education) in the Province of Bombay*. Bombay Local Self Government Institute, 1942. p. 2.

[3] Saiyidain, *et. al. op. cit.*, p. 19.

[4] D. M. Desai. *Universal Compulsory and Free Primary Education in India*. Bombay, India Institute of Education, 1953. p. 39.

> Why does not the nation move? First educate the nation. . .The kings are gone; where is the new sanction, the new power of the people? Bring it up. Therefore, even for social reforms, the first duty is to educate the people.[1]

BOMBAY ATTEMPTS. — Since 1880, a number of Indian leaders began stressing the need of education for all. The establishment of the Indian National Congress in 1885 further strengthened the movement. The first organised attempt to introduce compulsory primary education in British India was, however, made in Bombay under Sir Ibrahim Rahimtoola and Sir Chimanlal Setalwad. As a result of their agitation, the Government of Bombay appointed a Committee in 1906 to examine the feasibility of introducing compulsory education in the city of Bombay. But unfortunately this committee came to the conclusion that the time was not ripe for the introduction of compulsory education.[2]

BARODA AS PIONEER. — It is, however, worthy of note that an Indian prince achieved what the British Government found impossible. This noble prince was His Highness the Maharaja Sayajirao Gaikwad of Baroda. He introduced free compulsory education as an experimental measure in Amreli Taluka of his State in 1893, and then extended it to the entire State in 1906.[3]

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[1] Vivekananda. *Lectures from Colombo to Almora*. Mayavati, Avidha Ashram, 1933. p. 127.

[2] D M. Desai. *op. cit.*, pp. 41-47.

[3] B. C. Mehta. *Sayajirao as an Educationist*. Baroda, Faculty of Education and Psychology, Unpublished dissertation for M. Ed., 1955. pp. 67-73.

GOKHALE'S TWO ATTEMPTS. — The first definite and vocal demand for the introduction of compulsory primary education was made by Shri Gopal Krishna Gokhale, the veteran Indian nationalist leader, in 1910 when he moved his resolution in the Imperial Legislature and followed it up next year with another bill "to make better provision for the extension of elementary education".

In his bill Gokhale suggested that compulsion should be introduced in those areas where a certain percentage (to be determined by the Education Department) of boys and girls of school-age (6-10) was already receiving instruction, that it should be left to the discretion of local bodies whether to apply the Act to certain areas under their jurisdiction or not and that both for the fixing of the required percentage of attendance and for the introduction of compulsion the previous sanction of the Viceroy and the Governor respectively were necessary.

Thus Gokhale was very cautious. But the bill was opposed by all official members and some of the non-official members and was ultimately defeated by 38 votes to 13 in spite of the support of eminent persons like Pandit Madan Mohan Malaviya and Muhammad Ali Jinnah. In winding up the debate, Gokhale said:

> My lord, I know that my bill will be thrown out before the day closes. I make no complaint. . .I shall not feel even depressed. . .I have always felt and have often said that we of the present generation in India can only hope to serve our country by our failures.

CONCLUSION. — Gokale, no doubt, failed, but the seeds sown by him came up quickly for harvest. Between 1910 and 1917, there was an uprecedented expansion of primary education on a voluntary basis. His bill created a flutter in the dove-cots of the British Parliament, and the Under-Secretary of State for India admitted the need for paying greater attention to Indian education (1911).[1] A a result of this, the official machinery of education began to work a bit faster. Above all, his attempts tended to focus public attention on education in general and on compulsory education in particular.

Meanwhile the Great War of 1914-18 was fought and won. It brought in its train many disasters, but also a promise of political reform culminating in the Government of India Act of 1919 which incidentally stimulated interest in education.

Compulsion Spreads (1919-47)

A NEW OUTLOOK. — The Government of India Act, 1919, passed education for the first time in the hands of Indian ministers.[2] In 1937, provincial autonomy was introduced with the right to control all branches of the State administration. Thus public education became a direct responsibility of popular ministers and State legislatures, who showed a great interest in educational problems.

Besides the political development, a great social change came over the country under the leadership of Mahatma Gandhi who guided the national movement of the country since 1918. Under his inspiring guidance, the national movement became a mass movement, and the need for literacy amongst the masses if they were to be intelligent citizens of a democratic state became obvious.

Till 1917, Indian primary education lacked in legislation. Since 1918, however, all the State legislatures began passing acts for introducing compulsory primary education in their respective States, but the acts did not bring the desired results. Besides other causes, poverty of the masses and inadequacy of the educational budget were mainly responsible for the failure. This was the main reason which led Gandhiji to work out an inexpensive plan of education — the basic education.[1]

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[1] J. M. Sen. *History of Elementary Education in India*. Calcutta, Book Co., 1933. p. 197.

[2] *Supra*, p. 17.

ACTS OF COMPULSORY EDUCATION. — What Gokhale tried to achieve for the entire country, Shri Vithalbhai Patel partially achieved for Bombay. In 1917, he moved a bill in the Bombay Provincial Legislature for introducing compulsory education in the municipal areas (excepting Bombay City) of the State. It was broadly based on Gokhale's bill with two exceptions: (1) the scope was restricted to municipal areas only, as Gokhale's bill was criticised on the ground that rural areas were not ripe for compulsion; and (2) it did not prescribe any definite financial undertaking on the Government which was left free to give or not to give a grant-in-aid. Gokhale had, however, insisted that Government should bear two-thirds of the entire expenditure on compulsory education.

Shri Patel's bill became an Act in 1918. It was the first legislation to accept the principle of compulsory education. It aroused great interest and within a decade almost every province passed acts of compulsory education. In general, all the acts have been drafted on similar lines and are based either on Gokhale's bill or on the Patel Act. It is the duty of a local body to study its local needs and to prepare a scheme for extending primary education. A local body, wishing to introduce compulsion in any part of its area, should get its scheme passed by a majority of two-thirds in a meeting specially convened for the purpose. The scheme is then submitted to the State Government for approval. It may be noted that compulsion is to be introduced in one area after another. In areas where compulsion is enforced, the local body can levy an educational cess. It also receives reasonable financial assistance from Government. Ordinarily, compulsion has been prescribed for children between 6 and 10 or 11, though provision has been made for prolonging the period. The employment of school-going children is strictly forbidden, and a small fine is imposed for non-compliance with an attendance order. Education, unless otherwise specified, is free. No doubt, private schools are permitted to charge fees but they have to reserve a large number of free studentships.

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[1] *Supra*, Ch. III.

PROGRESS OF COMPULSION. — The progress of compulsion, prior to the partitioning of the country, will be evident from the following table:

TABLE 10

Compulsory Education in British India, 1921-37*

Year	Municipalities and Urban areas	Rural Areas
1921-22	8	—
1926-27	114	1,571
1931-32	153	3,392
1936-37	167	3,034

STATE INSTITUTE OF EDUCATION BANIPUR

* K. G. Saiyidain, *et. al. Compulsory Education in India.* Paris, UNESCO, 1952. pp. 147-148.

Thus the progress had not been very encouraging and specially between 1931 and 1937 the position was stationary. It was mainly due to two reasons. This period was a period of world-wide economic depression, and consequently new programmes of educational developments had to be abandoned.

Moreover, on the recommendations of the Hartog Report (1929), the Government adopted a policy of consolidation rather than of expansion. Inefficient schools were rooted out and only the efficient ones were allowed to exist.

With the introduction of provincial autonomy, the Congress Ministers came into power in 1937 in six major provinces. In spite of numerous difficulties, compulsory education progressed during the following decade. In 1946-47, compulsion existed in 229 towns and 10,017 villages for boys, and in 10 towns and 1,404 villages for both boys and girls.[1]

THE PRESENT POSITION

Administration

AGENCIES. — The agencies, which have to shoulder the responsibility of the administration of primary education are the Central Government, State Governments, local authorities and private bodies.

The Division of Primary and Basic Education of the Indian Ministry of Education has a number of sections which deal with subjects such as state's schemes on pre-primary, elementary and basic education, teachers' salaries, provision of compulsory education under the five-year plans, and the production of children's literature. The Ministry has also set up the All-India Council for Elementary Education on June 17, 1957. It advises the Ministry for improving and speeding up the programme of compulsory primary education. The CABE has also one standing committee on Elementary and Basic Education, which reviews, examines and reports on issues coming before the Board in respect of primary and basic education.

The main activities of the Central Government regarding elementary education during recent years are: (1) the all-India

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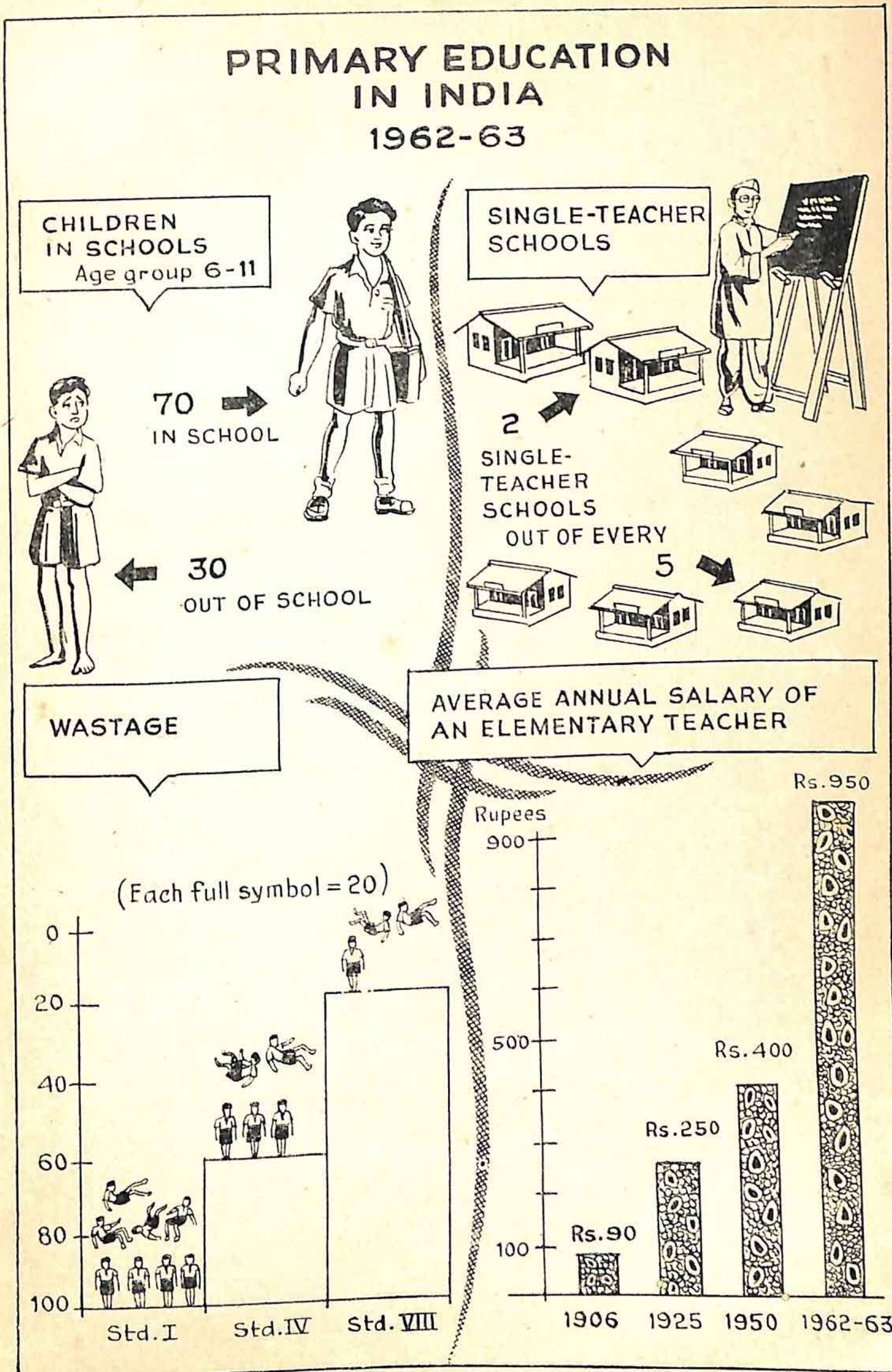
[1] *Progress of Education in India*, 1937-47, Vol. I. p. 73.

ILLUSTRATION 4



Educational Survey; (2) the draft model legislation on compulsory primary education; (3) expansion of training facilities for primary school teachers; (4) relief of the educated unemployment; (5) emergency teacher training; (6) improvement in the salary of primary school teachers; (7) housing for teachers in rural area; (8) the experimental pilot projects for universal primary education in rural area; (9) the expansion of primary education of girls; (10) text-books for primary schools; and (11) production of literature for children of primary stage. These aspects will be dealt at relevant places in this chapter.

Since independence, the State Governments attach the highest importance to primary and basic education. A high official not less than the rank of the deputy director of education handles the portfolio of this branch of education. Many States have also accepted the principle of associating the non-official opinion closely in formulating their educational policies. States have statutory or standing advisory boards of primary education.

Local bodies are generally directly responsible for the administration of primary education except in one or two States. So far as urban areas are concerned, the municipalities are responsible for the administration of primary education. In rural areas, a two-tier system of administering primary education is commonly prevalent. The district is the principal unit and the *taluka* is lower unit. During recent years with the concept of the village *panchayat* coming to be largely accepted as the unit for the administration of villages, in some States either a village *panchayat* has been accepted as the lower unit of administering primary education or it has been added as a third tier.[1]

MANAGEMENT. — The distribution of primary schools according to management is given in the following table:

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[1] *Supra*. p. 24.

TABLE 11*

Primary Schools by Management, 1954-60

Year	Total No. of Primary Schools	Number of Primary Schools Managed by			Percentage of Govt. Managed Schools	Percentage of Local Bodies Managed Schools	Percentage of Private Schools
		Government	Local Bodies	Private Bodies			
1	2	3	4	5	6	7	8
1954-55	2,63,629	59,262	1,33,020	71,344	22·5	50·4	27·1
1955-56	2,78,135	64,827	1,42,223	71,085	23·3	51·1	25·6
1956-57	2,87,298	64,098	1,52,064	71,136	22·3	52·9	24·8
1957-58	2,98,247	77,724	1,48,275	72,248	26·1	49·7	24·2
1958-59	3,01,564	81,939	1,48,301	71,324	27·2	49·2	23·7
1959-60	3,19,070	70,533	1,77,855	70,682	92·1	55·7	22·7

* Government of India. *Education in India, 1959-60*, Vol. I. Delhi, Manager of Publications, 1963. pp. 296-97.

The above data reveal that more than half the number of primary schools are managed by the local bodies and the remaining equally divided between Government and private agencies. There has been a considerable rise in the number of local board schools. Numerically, private schools more or less show a decreasing trend. On percentage basis, the decline is more marked.

Finance

EXPENDITURE BY SOURCES. — There are five sources for the support of primary education. Government (Federal and State) funds, local (district and municipal boards) funds, fees, endowments, and 'other sources', i.e., the voluntary contributions of the people. The following table gives a picture of direct expenditure met from different sources on primary schools excluding primary department of middle and high schools during 1959-60:

TABLE 12

Direct Expenditure On Primary Schools By Sources, 1955-60*

Year	Govt. funds	Local Board funds	Fees	Other sources	Total	Percentage o expenditure met from Government and Local Boards funds
1954-55	36·95	10·70	1·56	1·68	50·89	93·6
1955-56	39·55	10·75	1·75	1·68	53·73	93·6
1956-57	43·56	11·50	1·80	1·62	58·48	94·2
1957-58	52·36	10·75	1·76	1·84	66·71	94·6
1958-59	51·78	8·36	1·57	1·86	63·57	94·6
1959-60	56·31	9·92	1·66	1·82	69·71	95·0

* *Education in India*, 1959-60, Vol. I. p. 301.

The above table shows that government and local boards funds meet ninety-five per cent of the total direct expenditure. It may also be noted that from time to time the Central Government gives financial assistance to the States for executing their developmental plans. But there is no definite policy.

COST PER PUPIL. — The average annual cost per pupil in a primary school was Rs. 26 in 1959-60. Its distribution over the different sources of income was: government funds Rs. 21·7, local board funds Rs. 3·8, fees Rs. 0·6 and other sources (including endowments) Rs. 0·7. It was the highest in N.E.F.A. (Rs. 112·6). In other States, it varied.[1]

Schools

NUMBER OF SCHOOLS. — Primary education is imparted in primary schools as well as in primary departments of middle and high schools. The following table shows the number of primary schools in the country during 1950-51 to 1959-60 (excluding primary departments of middle and high schools):

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[1] *Education in India*, 1959-60. Vol. I. p. 66.

TABLE 13

Number of Primary Schools, 1951-60

Year	Primary Schools	
	Number	Increase from the previous year
1950-51	2,09,676	4,850
1951-52	2,15,036	5,360
1952-53	2,22,014	6,978
1953-54	2,39,382	17,368
1954-55	2,63,626	24,244
1955-56	2,78,135	14,509
1956-57	2,87,298	9,163
1957-58	2,98,247	10,949
1958-59	3,01,564	3,317
1959-60	3,19,070	17,506

The data indicate that the number of primary schools in the country has been steadily increasing, but the rate of increase has not been steady. The average increase in the number of schools over the period of ten years has been to the order of 10,000 per year, which is indicative of the efforts made both in the public and private sectors for the establishment of a broad based system of education in the country.

TYPES OF SCHOOLS. — It has been pointed out that the basic system of education has been accepted as the national system of education, and the State Governments are taking steps to convert the primary schools into junior basic ones. But due to existing unsurmountable difficulties, the majority of primary schools are yet of the traditional type. The duration of the primary stage is also not uniform.

SINGLE-TEACHER SCHOOLS. — Single-teacher schools constitute a sizable proportion of the total number of primary schools (43·6 per cent in 1959-60). During 1950-51 to 1959-60, their number is more a less doubled. Although the percentage of increase in the number of these schools is fluctuating from year to year, their proportion to the total has been on the increase. This is mainly due to the fact that we are attempting to provide schools in small school-less villages in our endeavour to have universal provision of schools and to establish a school within an easy walking distance from the home of every child. The following statistics gives information regarding single-teacher schoools.

TABLE 14

Single-Teacher Schools

Year	Number	Percentage of increase from previous year
1950-51	68,841	·11
1951-52	71,361	·73
1952-53	75,214	5·1
1953-54	86,031	14·4
1954-55	1,01,342	17·8
1955-56	1,11,220	9·7
1956-57	1,16,272	4·5
1957-58	1,23,248	6·0
1958-59	1,26,238	2·4
1959-60	1,38,993	0·8

Pupils

INTRODUCTION. — On the eve of Independence, hardly 36·3 per cent of children in the age group 6-11 were in school of one kind or the other. This was a challenge to the country. The Indian Ministry of Education appointed a committee in 1952 under the chairmanship of late Sri B. G. Kher to examine the existing financial resources and suggest ways and means of raising finances required for the different stages of a comprehensive system of education. This Committee presented a scheme for introducing eight years' compulsory education within a period of 16 years by two five-year and one six-year plans. The Committee also went into the question of finance and worked out detailed estimates of expenditure involved in various stages and suggested that the Centre should provide 30 per cent of the cost while the Provincial Governments and local bodies should finance the remaining 70 per cent.

The Constituent Assembly to which was entrusted the task of preparing a Constitution for the country made free and compulsory education one of directive precept of State policy in the following terms:

> 45. The State shall endeavour to provide within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years.

ENROLMENT. — Since independence, the number of pupils in elementary schools has increased considerably. Table 15 indicates the advance made.

TABLE 15*

Emolment in the Primary Stage, 1950-51 to 1962-63

Year	Emolment in classes I-V (in lakhs)	Percentage of population in the age-group
1	2	3
1950-51	191·5	42·3
1951-52	198·1	43·3
1952-53	203·5	43·8
1953-54	216·7	46·0
1954-55	232·2	48·5
1955-56	251·7	52·9
1956-57	267·1	59·5
1957-58	281·7	56·7
1958-59	304·5	57·3
1959-60	324·5	59·5
1961-61	343·4	61·9
1961-62	378·4	65·4
1962-63	415·4	69·7

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* Government of India. *Programmes of Education Development (1961-66)*. Unpublished p. 15.

It is evident that the enrolment is maintaining a rising trend. But even this record does not justify complacency, because we have still a long way to go to attain the objective of providing free and compulsory education for all children in the age-group of 6-14. Co-education is more or less a common feature at the primary stage. During 1959-60, of the 80,53,681 girls under instruction in primary schools, 65,43,435 or 81·2 per cent on rolls of the schools for boys.[1]

COMPULSION. — Prior to 1947, compulsory primary education in some form or other was being enforced in all Part 'A' States and in Madhya Bharat, Mysore, Travancore-Cochin and Delhi.[2] In 1948, the areas where primary education was compulsory were 224 towns and 10,010 villages.[3] The growth of compulsion since then will be evident from the following statistics:

TABLE 16*

Statistics of Compulsory Primary Education, 1949-60

Year	No. of Areas Under Compulsion		No. of School, where compulsion was inforce		Under Compulsion No. of Pupils (in lakhs)		Total
	Towns	Villages	Towns	Villages	Towns	Villages	
1949-50	385	18,437	7,583	23,686	12·60	27·32	39·92
1950-51	396	20,261	8,350	25,211	14·31	27·36	41·67
1951-52	640	32,061	9,622	26,260	17·01	29·34	46·35
1952-53	632	33,834	9,958	26,601	17·92	29·61	47·53
1953-54	893	35,603	10,679	26,728	20·55	28·31	48·86
1954-55	998	39,079	11,685	31,775	22·51	31·72	54·29
1955-56	1,081	39,276	12,664	33,554	24·66	36·22	60·88
1956-57	1,194	53,607	12,890	45,467	25·52	37·75	63·27
1957-58	1,314	55,168	13,244	50,823	27·27	41·08	63·35
1958-59	1,199	56,701	14,173	51,899	28·40	44·04	72·44
1959-60	1,219	60,478	15,423	53,440	31·93	47·87	79·81

* Government of Education. *Programmes of Educational Development* (1961-66). Unpublished. p. 18.

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[1] *Education in India*, 1959-60. Vol. I. p. 53

[2] *Progress of Education in India*, 1947-52. p. 5.

[3] Education in India, 1951-52. Vol. I, p. 44.

It may be noted from the above table, that not only has there been a striking rise in the total number of villages and towns under compulsion, but even the number of children under compulsion shows a considerable rise.

Teachers

GROWTH. — During the last quiquennium, the number of teachers together with provision of their training shows a satisfactory rise. The following table gives an idea of the growth.

TABLE 17*

Teachers in Primary Schools, 1954-60

Year	No. of Teachers in Primary Schools (In thousands)			No. of trained Teachess (in thousands)	Percentage of Trained
	Men	Women	Total		
1	2	3	4	5	6
1953-54	518	105	623	390	62·5
1954-55	563	113	676	418	61·8
1955-56	574	117	691	423	61·2
1956-57	589	121	710	442	63·5
1957-58	602	127	729	463	63·5
1958-59	577	118	695	443	63·7
1959-60	606	125	731	467	63·8

* *Education in India, 1959-60*. Vol. I. p. 302

During 1959-60, the average number of pupils per teacher in primary schools was 35. The average among the States, ranged, from 41 in Bihar to 31 in Jammu & Kashmir and among Union Territories, between 43 in L.M. & A. Islands 21 in N.E.F.A.

SALARIES AND QUALIFICATIONS.— In 1946-46, the average salary of a primary teacher was Rs. 479/- only and he had only completed the middle school course. Since independence, steps have however been taken for improving the salary scales and conditions of service of teachers. This will be evident from the statistics in Table 18.

TABLE 18*

Qualifications and Salaries of Primary Teachers, 1949-58.

Year	General Education		Professional Education		Average Annual Salary per Teacher
	Matric	Non-Matric	Trained	Untrained	
1	2	3	4	5	6
1949-50	45,534 (8·79%)	4,72,364 (91·21%)	3,02,050 (58·30%)	2,15,848 (41·68%)	479·22
1950-51	55,708 (10·36%)	4,82,21 (89·64%)	3,16,124 (58·77%)	2,21,794 (41·23%)	544·52
1951-52	64,591 (11·46%)	4,99,687 (88·59%)	3,46,199 (64·42%)	2,17,479 (38·58%)	602·2
1952-53	82,772 (14·11%)	5,03,940 (85·59%)	3,64,808 (62·18%)	2,21,904 (37·82%)	634·8
1953-54	1,06,703 (17·12%)	5,16,522 (82·88%)	3,89,525 (62·50%)	2,33,730 (37·40%)	623·1
1954-55	1,44,955 (21·45%)	5,30,846 (78·55%)	4,17,816 (61·83%)	2,57,985 (38·17%)	633·3
1955-56	1,68,955 (24·42%)	5,22,466 (75·58%)	4,23,192 (61·22%)	2,68,057 (38·78%)	651·5
1956-57	6,95,232 (27·49%)	5,14,907 (72·51%)	4,42,147 (62·26%)	2,67,922 (37·74%)	694·0
1957-58	2,09,903 (28·78%)	5,19,223 (71·22+)	4,63,435 (62·55%)	2,65,904 (36·45%)	780·6
1958-59	—	—	4,43,063 (63·73%)	2,52,171 (36·27%)	—

* Government of India. *Programmes of Educational Development*, (*1961-66*). Unpublished. p. 37.

In 1949-50, the percentage of non-matriculate teachers was as high as 91. This decreased to 71 per cent in 1957-58. While the percentage of untrained teachers has been decreasing slowly, the average annual salary of a teachers shows a continuous rise. The average salary of a primary teacher today is about Rs. 1,000/- per year.

COUNTRY'S NEEDS AND ESTIMATES

THE ALL-INDIA COUNCIL OF ELEMENTARY EDUCATION (AICEE). — In order to accelerate the pace of expansion of elementary education and to fulfil the directive of Article 45 of the Constitution, the Government of India has set up the

All-India Council for Elementary Education with effect from July 1, 1957. The functions of the Council include preparation of programmes for the early implementation of the Constitution, to revise them as and when necessary, and to review the progress made in this direction, preparation of detailed programmes for the expansion and improvement of elementary education in each State, organising and assisting research in the administrative, financial and pedagogic problems of elementary education, production of literature to help the eduation department and teachers to improve the quality of elementary education, collection of data on problems of elementary education, conducting sample surveys and special investigations, and generally to advise on all matters as might be deemed necessary to provide proper guidance, leadership and coordination for the improvement and expansion of elementary education.

The Council has 23 members, one representative from each State, one member of the CABE to be nominated by its chairman, one representative of the All-India Council of Secondary Education to be nominated by its chairman, one principal of a training college to be nominated by the Union Minister for Education, and two educationists connected with fields of basic education, girls' education and education of backward classes. The Education Adviser of the Ministry of Education is the chairman of the Council, the head of the Basic and Social Education Division of the Ministry acts as its Secretary. Non-official members hold office for two years, while official members continue until they are replaced by others. The headquarters of the Council are at New Delhi.

It is too early to judge the effectiveness of the work of the Council. But during its short period of existence, the Council has pin-pointed the vital issues involved in the effective implementation of the Constitutional directive on universal primary education. Some of these issues are: (1) Ways and means of improving attendance in primary schools and the introduction of incentives such as free mid-day meals, free books, etc. before introducing compulsory attendance through legislation; (2) Selection and training of teachers at the primary stage and the improvement of their status and qualifications; (3) Special facilities for teachers in tribal areas; (4) Wastage and stagnation at the primary stage; (5) Minimum age for admission to Standard I; (6) Model legislation for introducing free and compulsory primary education; (7) Block as a primary unit for educational planning, development and administration; (8) The character of local participation in the administration of primary education; (9) Exprimental pilot projects for universal primary education in rural areas; and (10) The physical targets in respect of universal primary education under the five-year plans, etc.

UNIVERSAL COMPULSORY EDUCATION. — The importance of providing primary education to every child in a country does not need elaboration. In these days, the prosperity of a nation is inextricably bound up with the education of her people. Attendance at school was made compulsory up to the age of 14 in Belgium in 1914, in England in 1918 and in France in 1936. The laws of the states of Germany enjoin attendance at a full-time schooling for all children for at least eight years. The Constitution of the Republic of China stipulates that "all children of school-age from 6 to 12 shall receive free primary education." Today, every advanced country provides compulsory primary for all children up to the age of 14. Our constitution also aimed at reaching this target by 1960.[1] But that has not been achieved.

The position of education was however, reviewed in 1957 by the Educational Panel of the Planning Commission, which ruefully noted that the Constitutional directive could not be realized by 1960. It therefore, recommended that while the provision of universal, free and compulsory education up to 14 years may be regarded as the ultimate objective, and an attempt should be made to realize it in a period of 15 to 20 years at the latest, the immediate objective before the country should be the introduction of universal, free and compulsory education for all children up to the age of 11 by 1965-66.

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[1] *Supra.* p. 80.

Even for this reduced age-group, the task of imparting compulsory education was far from being simple or easily manageable. Table 2 shows that by 1960-61, the enrolment of children of the age-group 6-11 was 61·1 per cent. The target fixed for the Third Plan is 76 per cent for 1966. But this is likely to exceed and we may reach an enrolment 80 per cent in this age-group by 1966. It is, therefore, very natural to anticipate that, given the continuance of the effort that is being made in the Third Plan, this enrolment would rise to 90 per cent by 1971 and to 100 per cent by 1975. As regards the children of the age-group 11-14, it is assumed that the enrolment would be 38 per cent by 1971 and by 1976, it would be 50 per cent.

MODEL LEGISLATION FOR COMPULSORY EDUCATION.—In order to facilitate the task of the State Governments in regard to the revision or adoption of Compulsory Primary. Education Acts, the Union Ministry of Education took up the preparation of a model legislation on compulsory primary education during 1958-59. The draft is ready and its salient features are:

1. A better and more accurate definition of terms such as 'specified area', 'academic year' and 'child';

2. A clear enunciation of the provisions relating to the issue of notification regarding the introduction of compulsory education by the state government;

3. Simultaneous introduction of compulsion for boys and girls;

4. Clear enunciation of steps involved in the preparation of a scheme of compulsory education and its sanctions;

5. Suggestion of provisions which could be applied if a local body ignores the directive given by the state government in respect of preparing schemes for compulsory education;

6. Suggestion of provisions to be applied for the progressive introduction of compulsory education;

7. Specific definition of 'necessary facilities' a term used by the local bodies in their schemes of compulsory education, but hitherto not defined in the State primary Education Acts;

8. Suggestions for preparing forms and registers about the list of children to whom the scheme of compulsion applies, with a view to evolving a standard pattern;

9. Improved provisions and rules about the determination of reasonable excuse for non-attendances;

10. Better provisions and more clear and precise rules for putting the attendance order in practice; and

11. A clear definition of 'the attendance authority' and better enunciation of his functions than those obtaining in the State Acts on compulsory education.,

EDUCATIONAL SURVEY. — Since the problem of providing universal education is a gigantic one, the Government of India felt that their plans for compulsory primary education would be greatly facilitated if an accurate assessment could be made of the need for locating future schools throughout the country. Between the years 1956 and 1959, the Government of India carried out an educational survey of India in close cooperation with the State Governments.[1] Its objects were to find out: (1) the number and population of cities, towns and villages already provided with schools, and (2) the number and population of villages still to be provided with schools, and the manner in which new schools could be started so as to avoid overlapping and to achieve the maximum effect at minimum cost.[2]

TEACHERS. — Another factor which is coming in the way of the scheme of universal education is the teacher. His salary is low and his general education is poor, his training is also inadequate. There are no programmes of in-service education and the facilities for pre-service training are inadequate. The duration of training has not been uniformly of two years and standards of teacher education institutions are low. It is, therefore, necessary to remove these handicaps.

In this connection, the first problem is to supply an adequate number of teachers. This estimate depends largely upon the total number of pupils to be educated and the over-all teacher-pupil ratio. In 1961, the population of the country was 438 million and it is estimated to rise to 625 million in 1975. The total number of children in the age-group of 6-14 was about 84 million in 1961 and it is expected to rise to 126 million in 1975. If the target of the Third Plan is to be accepted, the expected enrolment of pupils in schools in the age-groups 6-11 and 11-14 will be as given in Table 19.

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[1] It covered all the States (except West Bengal) and four Union Territories (Delhi, Himachal Pradesh, Manipur and Tripura).

[2] *Education in India*, 1956-57. Vol. I. p. 39.

TABLE 19*

Targets in Elementary Education, 1961-76

Item	1961	1966	1971	1976
1. Total Population of India	438	492	555	625
2. No. of Children in the Age-group, 6-11	56	65	73	80
3. No. of children in the above group in schools	34·3	49·6	65·2	80
Percentage to Total	61·1	76·4	90·0	100·0
3. No. of children in the age-group, 11-14	28	34	39	46
No. of children in the above age-group in schools	6·3	9·8	14·8	21·5
Percentage to total	22·8	28·6	38·0	50·0
Total No. of children in Age-group 6-11 in schools	40·6	59·4	80	101·5

* Ministry of Education, *Draft Perspective Plan for the Development of Elementary Education in India, 1961-78.* (Unpublished). 1962. pp. 1-2.

In short, approximately by 1976 the total enrolment at the elementary stage is expected to be 100 million. How many teachers will be required to teach them? This will depend on two factors: (a) the number of teachers required to fill the gaps caused due to untimely death, resignation and retirement of existing teachers; and (2) number of teachers required to meet the increasing enrolment in classes I-VIII. So far as this aspect is concerned, it is calculated that between 1961-76 approximately two per cent of teachers will retire and another two per cent will cease to be teachers due to some reason or the other. Secondly, the number of teachers required for additional enrolment in classes I-VIII will depend upon the pupil-teacher ratio adopted. On the basis of pupil-teacher ratio of 35, 40 and 50, the Indian Ministry of Education has formed the following estimate about the additional teachers required between 1966-76.

TABLE 20*

Total Number Additional Teachers Required, 1966-76 (In thousands)

Assumption	Pupil-Teacher Ratio			
	35	40	45	50
I. 100 per cent in 6-11 age-group and 50 per cent in 11-14 age-igroup	201	161	131	106
II. 100 per cent in 6-11 age-group and 75 per cent in 11-14 age-group	262	189	155	128
III. 100 per cent 6-11 age-group and 100 per cent in 11-14 age-group	264	211	179	150

* Ministry of Education. *Draft Perspective Plan for the Development of Elementary Education in India, 1961-75.* (Unpublished). 1962. p. 12.

FUNDS. — Another important aspect of universal, compulsory elementary education is the cost. The Indian Ministry of Education has estimated that the average direct expenditure of educating a child will be Rs. 110/- Rs. 50/- on teacher, Rs. 50/- on items like school health, free uniform and text-books, etc., and Rs. 10/- on account of teacher education, and direction and supervision. Based on this estimate, the total expenditure for educating 100 million[1] children will be Rs. 11,000/- million approximately.

UNIVERSALISATION OF EDUCATION

INTRODUCTION. — The White Paper, containing proposals for the post-war expansion of the British system of education begins with the words:

> Upon the education of the people of this country, the fate of this country depends.

These words have universal application. The movement for compulsory education began in India under the leadership of the Late Shri Gopal Krishna Gokhale in 1910, and by 1930 almost every State had placed a law for compulsory education on its statute book. Prior to 1947, our national leaders demanded that the British Government should fix a definite date by which universal and compulsory education would be provided in this country. But the British Government never accepted the idea.

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[1] *Supra.* p. 89.

Ultimately when the country became free, the Article 45 of the Constitution prescribed a time-limit and directed that free and compulsory education should be provided for children up to 14 years, within ten years from the date on which the Constitution came into force. It is regrettable that this objective has not been achieved.

It has now been realised that it is very difficult to reach this target. The Planning Commission has now adopted a realistic approach. The immediate target before the country is that by 1975 we should enrol in schools 100 per cent of the children in the age-group 6-11 and 50 per cent of the children in the age-group 11-14. Even this will need very careful planning. A study of the provision of universal elementary education in advanced countries of the world shows that the expansion of elementary education generally passes through the following three stages:

1. *Universality of Provision.* — This means that an elementary school should be within an easy walking distance from the home of every child;

2. *Universality of Enrolment.* — To enrol every child of 6-7 (the first year of compulsory age) in school, so that the vast majority of children of Class I are of this age-group.

3. *Universality of Retention.* — Education cannot be effective, unless every pupil continues schooling till he completes his elementary education. Premature withdrawal results in 'Wastage' in education.[1]

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[1] Ministry of Education. *Draft Perspective Plan for the Development of Elementary Education in India. op. cit.* Pp. 45-57.

In our planning for universal, compulsory education, these three facts will have to be borne in mind. Let us discuss them one by one.

UNIVERSALITY OF PROVISION. — The All-India Educational Survey, 1958-59, has made a fair estimate of the total number of elementary schools needed for the rural areas. Since the urban areas are fairly provided with elementary schools, the survey concentrated its attention on the rural areas. Table 21 gives the following figures for the rural habitations and population arranged slab-wise as noted by the Survey:

TABLE 21*

Rural Habitations, 1957

Population Slab	Number of Rural Habitations included in the Population Slab	Populations of the Rural Habitations included in the Slab.
5,000 and Above ..	553	35,38,611
2,000 — 4,999 ..	11,563	3,17,75,052
1,000 — 1,1999 ..	41,386	5,55,72,121
500 — 999 ..	1,05,495	7,26,00,618
400 — 499 ..	49,700	2,20,97,073
300 — 399 ..	74,146	2,54,76,222
200 — 299 ..	1,13,790	2,76,72,808
100 — 199 ..	1,89,329	2,70,57,876
Below 100 ..	2,54,071	1,37,60,565
Total Below 500	6,81,036	11,60,64,544
Grand Total	8,40,033	27,95,50,946

* Ministry of Education. *A Brochure on Educational Survey of India.* Delhi, Manager of Publications. 1959. p. 11.

In order to provide schools in 8,40,033 habitations, the Survey suggested the establishment of three types of schools: (1) an Independent School for every habitant with population of 3,000 or more; (2) a Group School for a group of habitants each with a smaller population but situated within one mile of each other and (3) the peripatetic teacher schools, where, the habitations were so small as not to justify even the requisite minimum total population to justify the appointment of a single-teacher. The Survey revealed that the country will need a total of 3,23,463 primary schools of which 1,50,215 would be independent schools and 1,72,304 group schools and 944 peripatetic-teacher schools. As 2,27,135 schools were already existing in the country in 1957, the Survey concluded that 1,03,288 new primary schools would be needed. The break of these institutions in different States is given below:

TABLE 22*

Number of New Primary Schools Needed According to the Educational Survey

State/Union Territory	Total No. of Schools proposed by the Survey @	Total No. of Schools in Existance on 31-3-57	Total No. of Primary Schools needed
1. Andhra Pradesh ..	27,849	22,708	5,141
2. Assam	14,192	11,001	3,191
3. Bihar	37,261	26,351	10.910
4. Bombay	49,300	40,528	8,772
5. Jammu & Tshmir ..	2,825	1,884	941
6. Kerala	7,938	5,751	2,187
7. M.P.	35,718	20,824	14,894
8. Madras	19,832	17,979	1,853
9. Mysore	21,632	17,875	3,757
10. Orissa..	21,370	15,032	6,338
11. Punjab	12,708	11,229	1,479
12. Rajasthan	17,773	8,933	8,840
13. U.P.	59,637	26,168	33,469
14. Delhi	220	190	30
15. Himachal Pradesh ..	1,931	1,004	927
16. Manipur	862	671	191
17. Tripura	1,262	895	367
Total.. ..	3,32,311	2,29,023	1,03,288

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* Government of India. *Programmes of Educational Development, 1961-66.* (Unpublished). p. 21.

@ Includes peripatetic schools.

In implementing the recommendations of the Survey schools, which have been accepted by the Government of India and the State Governments, a large number of these schools were established in the Second Plan itself and it has been decided that the entire programme should be completed within the Third Plan. It is hoped that by 1966 the proposals made in the Survey would have been fully implemented. It may, however, be noted that by 1975 many of the smaller inhabitants will develop, and independent schools will have to be established there.

UNIVERSALITY OF ENROLMENT. — In planning elementary education, the greatest necessity is the formation of a homogeneous cohort in Class I. It should enrol children of the same age-group (6-7 in India). In practice, however, this cohort is extremely heterogeneous which will be evident from the statistics in Table 23.

This heterogeneity is due to two reasons: (1) admission of pupils of any age-group in Class I, and (2) stagnation, i.e., the retention in the lower classes of a child for a period of more than one year. It should be admitted that there is practically no planning in India while admitting children in Class I. In advanced countries, birth and death registers are maintained accurately so that the Government can anticipate the approximate number of age at the opening of school year. Thus serious efforts are needed in India so that at least 90 per cent of children of Class I are of the age-group 6-7.

'Stagnation,' as the Hartog Report has defined, 'is the retention in the lower classes of a child for a period of more than one year.[1] According the estimates of the standing committee on primary education of which Shri U. N. Dhebar is the president as few as 20 per cent of the pupils are promoted to the next class.[2] In fact, Class I is the stagnant pool.

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[1] Hartog Report. p. 47.

[2] *Times of India*, October 22, 1962.

TABLE 23*

Enrolment in Class I (According to Ages)

Year	Below 6	5 — 6	6 — 7	7 — 8	8 — 9	9 — 10	10 — 11	11-date	Total
1949–50	90,442	13,83,897	22,79,352	15,33,337	8,08,555	4,46,106	2,07,200	1,47,450	69,01,249
1950–51	98,971	13,80,137	22,23,860	14,90,093	8,81,774	4,53,715	2,45,143	1,69,672	69,48,365
1951–52	99,916	13,84,320	22,71,893	14,57,813	9,34,302	4,59,841	2,40,307	1,76,727	70,25,119
1952–53	76,476	12,77,519	24,55,699	16,13,118	9,69,978	5,09,650	2,77,353	2,15,477	73,95,270
1953–54	80,324	14,42,472	26,08,748	16,37,979	10,67,438	5,45,468	2,94,574	2,10,110	80,87,113
1954–55	93,200	17,67,386	29,35,924	20,21,995	11,67,012	6,00,533	2,97,120	2,28,978	91,11,648
1955–56	73,970	20,16,824	31,44,168	22,56,116	12,93,880	6,43,119	3,05,819	2,24,209	99,58,105
1956–57	97,286	22,95,174	32,70,736	22,66,888	12,44,326	6,28,600	2,97,207	1,82,594	1,02,82,811
1957–58	91,075	20,23,504	31,84,844	27,46,353	14,91,489	7,51,326	3,84,882	2,34,313	1,09,07,786
1958–59	1,13,963	23,10,792	37,08,961	29,36,402	15,56,229	7,72,113	3,78,996	2,21,567	1,19,99,023

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[*] Government of India. *Draft Perspective Plan for the Development of Elementary Education In India.* (*1961-75*). (Unpublished), p. 53.

Stagnation has a very demoralising effect on pupils and parents. It results in wastage of money, time and effort. It is closely linked with wastage, because parents withdraw their children from schools after their repeated failures. It should be realised that "schools are established in order that children may be taught, not that they may be failed."[1] But failing students seems to have been a characteristic tendency of the educational administration of this country practically from its inception.[2]

UNIVERSALITY OF RETENTION. — Once the children are admitted in Class I, sufficient care is to be taken so that wastage (including stagnation) is avoided. It may be noted that "Primary education is ineffective, unless it at least produces literacy. On the average, no child who has not completed a primary course of at least four years will become permanently literate."[3] One can thus realise that there is a huge wastage in the educational system of our country, since about 60 per cent of children do not undergo complete four years' schooling and there is every chance of their lapsing into literacy. This will be evident from the following statistics.

TABLE 24*

Wastage and Stagnation, 1954-60
(enrolment in lakhs)

Year	Enrollent in Class I three years back	Enrolment in Class IV during the year	Numerical Wastage and Stagnation	Wastage and Stagnation in Percentage
1954-55..	70·25	30·74	39·51	56·2
1955-56..	73·95	32·16	41·79	56·5
1956-57..	80·87	34·67	46·20	57·1
1957-58..	91·12	36·86	54·26	59·5
1958-59..	99·58	40·20	59·38	59·6
1959-60..	102·83	42·48	60·35	58·7

* Government of India. *Education in India. 1959-60*. Vol. I. p. 399.

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[1] As quoted by R. V. Parulekar. *Literacy in India*. Bombay, Macmillan, 1939. p. 66.

[2] *Ibid.*, p. 68.

[3] *Hartog Report*. p. 47.

The Dhebar Committee also quite recently estimated that out of every 100 children who enter Class I, only 40 reach Class IV and only 20, Class VIII. It is also interesting to note the wastage in different classes, which will be evident from the following statistics:

TABLE 25*

Wastage in Different Classes, 1952-56 to 1959-60

Class	1952-56 Batch	1953-57 Batch	1954-68 Batch	1955-59 Batch	1959-60 Batch
I	100	100	100	100	100
II	61	61	61	59	58
III	50	49	50	48	49
IV	43	40	43	40	41

* *Education in India, 1959-60.* Vol I. p. 300.

It is clear from the above table that wastage and stagnation is the highest from Class I to Class II. The problem has been engaging the attention of the Government since the publication of the Hartog Report in 1929; but its extent, far from being reduced appreciably, is showing an increase.

Why is wastage proving to be such a baffling problem? There are economic, social and educational causes. The parents are willing to keep their children till the age of eight or nine. But the moment children are able to work, a number of parents of labouring and agricultural classes are forced to withdraw their children prematurely from schools and use their services to add a little to their scanty earnings. So long as the poverty of people prevails, it will be desirable to provide part-time institutions for such children. In rural areas, the school vacations should be adjusted to suit the requirements of harvest.

Social causes are very prominent regarding the education of girls. Till recently, there was a strong prejudice against the education of girls, and many parents did not want their daughters to be educated side by side with boys. Moreover, a girl is more helpful at home than a boy. This is why the wastage in education amongst girls is greater than boys; and while the literacy amongst males is 34·4 per cent, only 12·9 per cent of women are literate today.[1] Though these prejudices are gradually disappearing, still it would be desirable to provide part-time institutions and separate girls' schools whereever it may be possible.

The progress of primary education has also suffered owing to educational causes. Half the villages are without primary schools, there is dearth of teachers (trained or untrained), one-third of primary schools are single-teacher institutions, curriculum is defective and not related to life, teaching is unrealistic and there is lack of proper equipment and accommodation. Regarding the attainments of teachers, it may be pointed out that less than five per cent. of the teachers have passed the matriculation or the secondary school certificate examination, a large majority have completed only the primary course, so that their general education is not higher than that of the pupils they are expected to teach. A fairly large number have not completed the primary course. Some have received professional training for one year and some for two. But a large number of them are either completely untrained or are only certificated, i.e., have obtained some kind of teachers' certificate without attending a teacher training institution.[2] It may also be noted that, many parents fail to appreciate the value of education, since they are illiterate.

TASKS AHEAD

INTRODUCTION. — Thus there is a country-wide awakening, and the whole nation is conscious of the need for providing universal, compulsory education for all children in the age-group 6-14. The Indian Ministry of Education has drawn a tentative plan of bringing all children in the age-group 6-11 and fifty per cent of children in the age-group 6-14 to school by 1975. But the country will have to face a number of problems for making this project a success. No doubt, the main problems connected with universalation of primary education have already been discussed in the preceding section. Still there are some more problems, which need a detailed discussion. These are: (1) administration, (2) provision of schools, (3) finance, (4) teachers, (5) curriculum, (6) accommodation, (7) equipment, (8) ancillary services, (9) special problems, and (10) research.

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[1] *India, 1963.* p. 69.

[2] Saiyidain, et. al., *op. cit.*, p. 39.

ADMINISTRATION. — On the suggestions of the Balwantrai Mehta Committee, there is a movement towards the complete decentralisation in the administration of primary education in the country.[1] This is a move in the right direction. The local bodies are the seed-beds of democracy, and they should manage their own affairs. In Free India, the control of education should be brought as close to the people as possible. It may be noted that such practices are encouraged in a number of democratic countries. For example "local self-government in American education has made education responsible to the people and has constituted its greatest source of strength."[2] At the same time, it will be necessary for the local body to know its local needs thoroughly. It should keep itself in constant touch with its community, sense its needs, and seek cooperation of lay citizens. For example, School Board meetings are open to public and the press in the U.S.A. A number of areas, and organizations like school board community forums, community education associations discus local problems of education.

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[1] *Supra.* pp. 25-26.

[2] U. S. Office of Education. *Education in the United States of America, Washington.* U. S. Government Printing Office, 1951. p. 7.

But while advocating this policy, the State cannot divest itself of its responsibility in the matter. The following measures are suggested:

1. The State should initiate and prescribe a policy for the entire region.
2. The State should set up a standing board of primary education, consisting of official and non-official members, for defining the above policy.
3. The State should set the minimum standards, which all local school operating units are required to meet.
4. There should be a strong government machinery in every State for seeing that compulsion is effective. Further the Department of Education must be empowered to supervise and to control where necessary, the activities of local authorities.
5. The State should provide adequate funds for primary education.

Much of the success of our educational programmes will depend on our educational administrators and inspectors. If good educational programmes are to exist in our communities, the rank and file must understand what the schools are doing. They must know what proposed improvements mean, and what part the parents should have in modern education. In American education, "the building of good school community relationsships depends in a large part on the superintendent's ability to discharge in their full scope the functions of planning, informing and coordinating."[1] Our school administrative officers are the key persons upon whom the responsibility of a successful programme must fall.

It will also be the duty of the Indian Ministry of Education to give a proper lead to the country in defining a national policy. There is, however, an urgent need for an effective coordination between the Union Ministry of Education and the State Governments so that the existing feeling in the States that the Centre is trying to centralise all authority even in the domain, which really belongs to them, is removed.

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[1] A.A.S.A. *The American School Superintendency*. Washington, N.E.A. 1952. p. 127.

PROVISION OF SCHOOLS: *Introduction.* — Much of the recent schemes of universal primary education will depend on how the programme of the opening of new schools is executed. No doubt, the National Survey of India has given proper directions. But these have to be implemented properly. In this connection, we should realise that we need schools for urban and rural areas, and we also need special schools for aboriginal and hill tribes.

Schools for Urban Areas. — In urban areas, the problem of providing compulsory education does not present serious difficulties — often school buildings are available, teachers like to stay in cities, and the urban people fully appreciate the value of education. All that is needed is to create a cadre of properly trained attendance officers, to invest them with sufficient powers, and to adjust the school hours to the economic needs of the country.

It will also be desirable to frame laws, compelling industrial or mining organisations and associated industries to establish and maintain elementary schools for the community in which they operate. For example, Articles 67-71 of the Organic Law of 1942 in Mexico impose definite obligations upon employers. They are required to furnish complete and hygienic school quarters, adequately equipped with minimum necessities, such as libraries, text-books and general school materials.

Schools for Rural Areas. — But it will be a herculean task to establish schools in rural areas. School buildings and equipments are costly. The supply of suitable teachers is often totally inadequate Parents are reluctant to send their children to schools either because of poverty, or because, they do not realise the value of it, or because the children are needed for work. Nevertheless there are numerous instances, where these attitudes have been changed and the difficulties overcome. Apathy may be reduced if the teaching appears to have a practical bearing on rural problems. Opposition is weakened, if school terms are adjusted to seasonal farm operations. Adult education has been found to stimulate the desire for schools. Very often villagers have been prepared to meet the costs by providing buildings and contributing in some way to the living of the teachers.

It should be realised that the rural school is one of the most important agencies for village reconstruction. It no longer makes peasants, but rather citizens of India. It is not only concerned with training the future generation but it may also be made a useful centre of community interest and activity.

In linking the rural school with village reconstruction, it will be necessary to associate the entire village community with the school. This experiment is being tried successfully in Maxico, where the rural school lays the greatest emphasis on social activities among the adult population. As a result of this, the bond between the community and the school is being strengthened. Moisés Saenz, the Mexican Under Secretary for Education and the main architect of the new system, on returning from one of his nation-wide tours of inspection, said in a lecture:

> With these rural schools, you can never tell where the school ends and the village begins nor where village life ends and school life begins, because the school has resumed its original office as a true social agency and is one with the community.[1]

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[1] As quoted in M. B. Lourenco Filho, et. al. *The Training of Rural School Teachers*. Paris, UNESCO, 1952. p. 125.

Thus we should realise that the school as a social institution is a true community of work, and that every effort should be made to draw the entire village community to the village school.

Special Schools. — Another problem which is confronting Indian educationists during recent years is the education of aboriginal and hill tribes. Originally, a few schools were established for them. But since independence, there is a substantial increase in the number of these schools. Some organisations like the Bhil Seva Mandal and the Servants of India Society have been doing good work for the *adivasis* (aboriginal tribes). But India needs a large number of such associations.

At the same time, we cannot tolerate the establishment of communal or religious schools. Such segregate institutions should not be encourgaed in the least, since the Republic of India is a secular State. People of this country should learn to sink their differences and to meet on a common platform. Even separate girls' or linguistic schools are not necessary in small places, unless there is a sufficient strength justifying the need for running such separate institutions.

FINANCE. — It has been discussed earlier that the total expenditure for educating 100 million children as per target of the Planning Commission will be Rs. 11,000/- million approximately.[1] Today, India spends about 2·3 per cent of her national income on education. This is too meagre a percentage, when we find USSR spends about 7 per cent of her national income on education, Japan about 6 per cent, England 4·5 per cent, and the U.S.A. 4·47 per cent. It is, however, estimated that by 1975 India will spend 4 per cent of her income on education.[2]

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[1] *Supra*, p. 90.

[2] Government of India. *Draft Perspective Plan for the Development of Elementary Education in India,* (1961-75). Unpublished. p. 17.

It may also be realised that while most of the countries spend 50 per cent of their total educational expenditure on elementary education, India spends only 35 per cent of her educational expenditure on elementary education. It is assumed that by 1975 the percentage of expenditure on primary education to total education will rise to 50 per cent in this country too. It would be equal to two per cent of the total national income.

Special efforts will, however, be needed for equalising the uneven distribution of school facilities and school enrolment not only among States, but also among different regions and classes within each State. For example, the needs of education for girls and tribal areas are to be carefully looked into.

TEACHERS. — It is estimated that the total number of teachers needed will be 106,000 a year at the minimum (the lowest target and the highest teacher-pupil ratio) and 264,000 a year at the maximum (the highest target and the lowest pupil-teacher ratio).[1] In this connection, it should be realised that instruction will not be fruitful, unless we have proper teachers. Hardly twenty-five years ago, elementary education was restricted to the teaching of 3 R's only and as such it could be handled easily even by an Upper Primary Pass teacher. The present curriculum is very comprehensive in nature, and needs at least matriculate teachers if it is to be properly implied. It is, therefore, necessary that "Matriculation" should be the minimum qualification for an ordinary teacher.

With the rapid expansion of education, the output of matriculates is also sufficiently increasing to meet all our requirements of elementary teachers with matriculation as the minimum qualification. But the salaries and other emoluments should be sufficiently attractive to draw them to the teaching profession. Though the pay-scales of elementary teachers have been considerably improved in India since independence, still they are not what they should be. In advanced countries, the trend in revision of salaries of elementary teachers has been in the direction of equalisation to the level of the salaries of secondary teachers. Till this is achieved in India, elementary schools will continue to be staffed with ill-equipped teachers.

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[1] *Supra.* p. 90 (Table 20).

But we cannot wait, till a sufficient number of Matriculates join as elementary school teachers. In the early stages, we will have to adopt modest standards of qualifications and achievement. This is all the more necessary, since the majority of teachers, will have to work in villages where they seldom like to stay.

With rural schools being opened at the rate of over 1,000 a year, Mexico was faced with the problem of finding teachers to take charge of them. Persons with high qualifications were not attracted. Accordingly, candidates were chosen for their suitability of character; the qualities demanded were keenness, energy and spirit of service; preference was given to people from the same area in which they would have to serve, and youth was a further advantage. In the case of candidates fulfilling these conditions only modest qualifications were stipulated.[1] Their professional and academical qualifications were later on improved through a suitable in-service education programme. The same method may be adopted in this country too. Specially, village teachers should be recruited from among persons who possess and are likely to retain a sympathetic understanding of rural conditions.

At the same time, the problem of compulsory primary education cannot wait till more persons join as teachers. Proper

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[1] Cf. *El Esfuerzo Educatibo en Mexico* (1923-48). Mexico, Department of Education.

To effect qualitative reform in primary education, principles of basic education have now been adopted. The target for the Third Plan is to achieve 35 per cent additional enrolment in basic classes as against 23·3 per cent at the end of Second Plan. Since basic education cannot be introduced throughout the country immediately, attempts are being made to introduce crafts in the existing primary schools as a first step.

Some of the main defects of basic education have already been examined.[1] In rural areas, the entire community should be drawn to the school. In this connection, the Project method will prove very useful. It can be used not only to give a practical flavour to the contents of curriculum, but also as a means of teaching basic subjects, such as reading, writing and arithmetic. The project should be based on actual local needs, and should cover not only simple agricultural aspects and craftwork, but also home and community improvements, health, sanitation and personal cleanliness.

In working on a project, both children and adults see the need for cooperation and self-control and soon learn that it is each one's responsibility to contribute to the general success of the undertaking. While working in close contact with one another and with the group, there is built up a social spirit of mutual goodwill and service that carries over into community living. This procedure will help the parents to appreciate the value of education, because the teaching imparted will be directly related to the relations of life in its environment, and the curriculum will be coloured by work related to the lives of the people. Moreover, the school, in addition to being a place for intellectual exercise, will be the instrument by which new life may flow into the village. Shri Saiyidain has explained this principle emphatically in the following words:

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[1] *Supra*. pp. 53-54.

> No school in the countryside can capture the loyalty or the imagination of the villagers, if it is divorced from the realities of their life and their main interests and preoccupations. It is therefore essential to organize schools in such a way that to the child as well as his parents, it will appear to provide a better organized and more intelligent extension of the home activities and the work of the workshop. There will be of course a good deal more but these will be the basis and the rest will arise out of them.

It is not only good tactics to have such a school. It is also a good educational policy.[1]

ACCOMMODATION — The housing condition of primary schools is unsatisfactory. The number of buildings owned by Government or local bodies and specially constructed for schools are few. They house about 50 per cent of children under instruction. The majority of schools are housed in rented or rent-free buildings, most of which are unsuitable for school purposes, as they are ill-lighted, ill-ventilated and unhygienic.

In some States classes are held in tents, thatched bamboo huts and even in the open or under a tree which do not afford sufficient protection against the vagaries of weather.[2]

Thus the housing condition of primary schools in our country is deplorable. But the problem of universal schooling cannot wait till school buildings are constructed and equipped properly. We are told that schools were held under railway arches in England.[3] The primary schools of Germany were poorly lighted and ill-ventilated even as late as 1903[4] The elementary schools of Russia, in 1925, were typical village schools, with old, inadequate equipment.[5]

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[1] K. G. Saiyidain. "Educating the Village", *Developing Village India.* Delhi, Indian Council of Agricultural Research. 1951.

[2] *Education in India*, 1958-59. Vol. I. p. 7.

[3] Dinker Desai. *op. cit.*, p. 84.

[4] *Ibid.*, p. 85. [5] *Loc. cit.*

The problem of school buildings should not worry us in the least. Classes can be held in temples, mosques, *dharmashalas* (inns) and other public places. This was the custom in our country during Hindu and Mohamedan periods. It may be noted that in China schools are located in temples they being numerous, especially in towns. The educational world has fully recognised the value of open air schools. These can be opened very easily in our country, so bountifully blessed by nature. Is it very difficult to hold classes under the blue sky or under the greenwood tree in our country? It is stated that "In Ireland only up to the other day, teachers used to teach their pupils under a bush."[1] In short, the problem of primary education cannot wait till a sufficient number of school buildings are constructed. We shall have to take a bold step.

In short, whatever funds we have must at present be devoted to the spread of education rather than the construction of school buildings. We should carry out the suggestions of the late Maulana Abul Kalam Azad. In his presidential address to the 25th meeting of the CABE, he said:

> Our attention must be diverted from imparting school buildings to better teachers and better teaching. We should appeal to villagers that if we supply them with the raw material, they should build school houses for the same pattern as the houses in which they live.[2]

Instead of building a complete school right from the start, the villages may try to build it by stages, starting the institution only with a nucleus. Such a nucleus should provide storage, display and blackboard space while actual teaching may be carried out in the open. The State should provide this nucleus, and leave the community to proceed with the rest.

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[1] *Ibid.*, p. 86.

[2] Ministry of Education. *Schools for All.* Delhi, Manager of Publications, 1958. pp. 13-15.

EQUIPMENT. — The position about equipment continues to be poor. For example, the schools in the Punjab did not have sufficient matting for pupils to sit.[1] In this connection, it may be suggested that the community might be enthused to provide equipment like the school building. At the same time, there is need of research in the production of equipment so as to reduce cost.

ANCILLARY SERVICES. — It has been pointed out that one of the main causes of wastage in primary education is the poverty of the parents, who stop their children's schooling and make them co-workers in the family. Provision of free mid-day meals is a necessary and admittedly successful incentive to draw and hold in the school children for the poorest and most backward areas. In the Third Plan, a provision of Rs. 3·2 crores has been made in the State plans and the number of children proposed to be covered is 119 lakhs. The Statewise figures are shown in this following Table.

TABLE 26*

Provision for Mid-day Meals, Third Plan (figures in lakhs)

State/Territory	Provision (in rupees)	Number of children covered
1. Andhra Pradesh	75·00	8·00
2. Kerala	103·18	16·00
3. Madras	211·36	70·00
4. Mysore	30·00	5·00
5. Orissa	40·00	5·00
6. Punjab	40·00	10·00
7. Rajasthan	11·93	10·00
8. West Bengal	11·50	N. A.
9. A. & N. Islands	0·60	0·07
10. Pondicherry	8·50	0·32
Total..	532·07	119·39

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* Government of India. *Programmes of Educational Development, 1961-66.* p. 18.

[1] *Education in India, 1958-59.* Vol. I. p. 72.

In addition to mid-day meals, steps should be taken to provide free text-books and clothing to needy children.

SPECIAL PROBLEM. — Any programme of compulsory education will have to pay attention to the special needs of girls. It will also need an army of teachers, who will have to be trained. These two special aspects have been discussed in the chapters entitled 'Education of Girls' and 'Teachers — Their Training and Status.'

In addition, we need suitable literature for teachers and children. The Indian Ministry of Education initiated a scheme of the production of literature and reading material for children of basic and elementary schools. This will be continued at an accelerated pace during the Third Plan. The programme includes the preparation of source guide books for teachers of basic schools, monographs on basic education, supplementary reading material for children of basic schools, making basic education literature available in different regional languages, production of teaching aids for basic schools, institution of prize competitions for children's books, encouragement to publishers to bring out good children's literature and assistance to voluntary organizations working in the field of publications for children. The Ministry has also initiated a pilot project to improve the quality of Science teaching at the elementary stage through the appointment of Science Consultants in the States.

RESEARCH. — Education is a dynamic process calling for continual adjustment and this is possible only as a consquence of a large scale research and experimentation. Our problems of primary education are enormous, but researches on them have hardly been undertaken. It is high time that teachers colleges and the education departments of our country studied and undertook researches on problems of primary education. Some of the suggested problems are:

1. Converting an ordinary primary school into a basic school;
2. Problems of enforcing compulsion;
3. Illiterate parents and their attitude towards education of their children;
4. Multiple class-teaching;
5. Adjustment of school hours;
6. Wastage and stagnation;
7. School buildings;
8. A study of enforcement of compulsion in some foreign countries, and similar problems.
9. Construction of school buildings; and
10. Cheap production of suitable equipment.

At the same time, it will always be necessary to make educational survey of the country from time to time. The first Educational Survey of India conducted in 1959 revealed some of the major needs and problems of the country. It has been decided to make similar surveys from time to time. These will reveal how far education is progressing according to the targets freed by different Plans.

CONCLUSION

The main difficulties with some possible solutions for introducing universal compulsory education in this country have been examined in the preceding few sections of this chapter. During the British rule, compulsion was considered a luxury which should wait for better times. But we had to wait too long. Our politicians are faced with the same problem today. They will have to provide every Indian at least elementary education, since it is his birth-right and without it he cannot fully discharge his duties as a citizen of a free country.

But the progress is not as fast as circumstances demand. As Saiyidain and others say, "While the political situation demands the immediate introduction of the scheme, the politicians are not keen enough nor are they in a position to take it up."[1]

In fact, the very magnitude of the task may chill the enthusiasm of the most ardent supporters of universal schooling. But we need not be disheartened, since we should realise that all civilized countries had to face similar difficulties at some stage of their educational growth. They found out necessary money and men. Our National Government should also provide necessary money for the purpose. After all nations manage to find the money they need for war. A war against illiteracy has long been overdue in our country.

The establishment of compulsory education is of considerable importance, and involves very complex measures. It calls for clear-sightedness, determination, prudence and great skill on the part of authorities. In a welfare country like India, it is of paramount importance to see that every citizen receives at least the basic quantum of primary education. Ignorance not only prevents the democratic ideal from being realized but also acts as a brake on social growth and economic advancements. In fact it will not be wrong to say that through lack of elementary education, the full benefit of reforms in other spheres of life is not realized by the nation. It should also be appreciated that education and democracy should go together. It is, in fact, futile to imagine a government resting upon popular suffrage to be successful unless those who elect and those who have to become the governors are properly educated.

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[1] Saiyidain, *et al.*, *op. cit.*, p. 111.

CHAPTER FIVE

SECONDARY EDUCATION

BACKGROUND

EARLY DEVELOPMENTS. — The majority of secondary schools in India today are English schools. These institutions have an interesting history and they can trace their origin to the early efforts of nationalists and Christian missionaries during the late eighteenth and early nineteenth centuries. One of their main objects was to satisfy the demand of rich Indians to learn the language of their rulers. As early as 1830, the Court of Directors decided to give English education to Indians in order "to raise a body of natives qualified by their habits and acquirements to take a larger share and to occupy high situations in the civil administration of their country than has hitherto been the practice under our Indian Government."[1]

In the meanwhile, Lord Macaulay penned his famous Minute and Lord William Bentinck, the then Governor-General, through the resolution of March 7, 1835, set his seal of sanction to Macaulay's policy; the promotion of Western arts and sciences was acknowledged as the avowed object of the Government. Besides this Resolution, two new Acts further accelerated the growth of English education in this country. In 1837 English was made the court language; and in 1844 Lord Hardinge passed a resolution, according to which high posts were thrown open to educated Indians. As a result of these state measures, the movement for getting Western education in preference to the traditional learning began to gather strength in the country. By about 1852, the whole of India had 32 recognised English institutions.

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[1] A. N. Basu, ed., "Letter from the Court of Directors to the Governor in Council of Fort St. George, September 29, 1830". *Indian Education in Parliamentary Papers, Part I*, Bombay, Asia Publishing, 1952, p. 195.

FROM WOOD'S DESPATCH TO THE INDIAN UNIVERSITIES ACT OF 1904 (1854-1904). — The provision of Wood's Despatch (1854) gave a further stimulus to the growth of secondary schools. The Despatch declared:

> ..that the people of India should be made familiar with the works of European authors, and with the results of the thought and labour of Europeans on the subjects of every description and to extend the means of imparting this knowledge must be the *object* of any general system of education.

This declaration further encouraged the growth of English education in this country. The system of grant-in-aid, as recommended by the Despatch, also benefited secondary schools. In the meanwhile universities were set up at Calcutta, Bombay and Madras in 1857. Their establishment had very far-reaching consquences on the contents, range and scope of secondary education. They began dominating and controlling secondary schools through the matriculation examination. The policy regarding curriculum, examination, the medium of instruction and other vital problems began to be chalked out by them. Thus secondary schools began aiming at college preparation and had no terminal programmes.

During 1854-82, certain defects became prominent in the secondary system: the mother-tongue was completely dropped as the medium of instruction, nothing was done to train teachers for secondary schools, and the courses of study became too

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[1] *Wood's Despatch*, para 10.

academic and unrelated to life mainly because there was no provision for vocational or technical courses.

The Hunter Commission of 1882 examined the position of secondary schools of those days and suggested diversified courses of instruction in the secondary stage of education. It recommended:

> That in the upper classes of high schools there be two divisions — one leading to the Entrance Examination of Universities, the other of a more practical character, intended to fit youths for commercial or other non-literary pursuits.[1]

In spite of such a specific recommendation neither the public nor the Government seemed to have appreciated the value of the suggestion, with the result that the recommendation was practically ignored.

The growth of secondary education was very striking between 1882 and 1902, when the number of schools rose from 3,916 to 5,124, the enrolment from 214,677 to 622,868, and the matriculation figures from 7,429 to 22,767.[2] This unwieldy expansion without proper consolidation led to certain obvious defects. This was due to the absence of proper control. The Education Department had no jurisdiction over unaided schools, and university recognition was very loosely given since universities were not authorised to inspect schools.

The Indian Universities Act of 1904 empowered universities to draw necessary rules and regulations for the recognition of schools desiring to send up pupils for the matriculation examination. Necessary rules and regulations were framed for this purpose, and only recognised institutions were empowered to present their pupils at the matriculation examination. And thus secondary education came to be even more under the domination of the universities than before.

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[1] *Hunter Commission's Report*. para 3.

[2] S. N. Mukerji. *History of Education in India, op. cit.*, p. 172.

FROM THE SWADESHI MOVEMENT TO THE SADLER COMMISSION (1905-17). — The most noteworthy features of the period are: (1) the rise of nationalist tendencies, (2) the problem of the medium of instruction, and (3) the tension between universities and Government about control over secondary schools.

Rise of Nationalist Tendencies. — Since the beginning of the present century, Indians have been taking a great interest in educational matters. This is partly due to Lord Curzon's educational policy and partly to the rise of national consciousness. Soon after his arrival in India, Lord Curzon showed a keen interest in education, but his educational policy created a feeling of disgust and distrust in the minds of the people as regards official intentions. It was felt that the Government wanted to restrict free development of education, which India needed most. It is no wonder, therefore, that since the beginning of the present century, the educational policy of the British Government was watched and scrutinised critically. The general public also took a keen interest in educational problems, and its feelings were expressed in the press, on the platform and in the Central Legislature.

An open revolt against the prevailing educational system was organised in Bengal, and a body known as the National Council of Education was founded. The main leaders of the movement were Sir Gooroodas Banerjee, Rashbehari Ghosh and Rabindra Nath Tagore. In fact, this was the first organised movement for national education in India. The Council drew a very detailed programme of national education, starting from the infant stage right up to the university stage. A national college with Sri Aurobindo as its first principal and a technical institution (the present Jadavpur University) were started in Calcutta. Some national schools were also established in Bengal and students joined them in sufficient numbers. These schools sought to teach a trade in addition to the ordinary matriculation course.

The movement, however, did not last long. With the slackening of the Swadeshi Movement, the schools with the exception of the Jadavpur University were closed down. But it showed the urgent need for introducing a vocational bias in our secondary system.

The Medium of Instruction. — The problem of the medium of instruction also raised bitter controversies during the period. It was felt that the mother-tongue and not English should be the medium of instruction at the secondary stage. The question was discussed very critically in the Imperial Legislative Council, when Shri S. Rayaningar moved the following resolution (March 17, 1915):

> That this Council recommends to the Governor-General-in-Council to have, in consultation with the Provincial Governments and Administrations, steps taken for making the Indian Vernaculars media of instruction and the study of English as a second language compulsory for Indian pupils in all secondary schools.[1]

The resolution was opposed for the following reasons: (1) the pupils' knowledge of English would deteriorate, (2) suitable text-books in modern Indian languages were not available, (3) there would be difficulties in cases of provinces speaking more than one Indian language, and (4) English was a language of inter-provincial importance. The ultimate result was that English continued to be the medium of instruction in secondary schools.

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[1] As quoted in S.N. Mukerji. *History of Education in India, op. cit.* p. 212.

Control of High Schools. — During this period, secondary schools had to seek recognition from two agencies, viz., (a) the Education Department for grant-in-aid, and (b) the university for permitting them to present their pupils to the matriculation examination. The latter privilege empowered the university to give recognition to its schools, to lay down the courses of study, to prescribe text-books, and to conduct the matriculation examination. This duality of control often resulted in open conflicts. The Education Department held that the university should confine its attention to the matriculation examination and should not have any control over high schools. It further alleged that in many cases the university was granting recognition to inefficient schools and was thereby encouraging bad education.

FROM SADLER COMMISSION (1917) TO INDEPENDENCE (1947). — During the period, problems of Indian education were examined by some important reports, viz., Calcutta University Commission's Report (1919), Hartog Report (1929), Abbott-Wood Report (1937) and the Sargent Report (1944). The main recommendations of these reports, pertaining to secondary education, are discussed below.

Calcutta University Commission's Report. — In 1917, the Government of India appointed the Calcutta University Commission under the chairmanship of the late Sir Michael Sadler, the Vice-Chancellor of Leeds University at the time. The Commission examined some common problems of secondary and university education, and held that "no satisfactory reorganisation of the university system...will be possible unless and until a radical reorganisation of the system of secondary education, upon which university work depends, is carried into effect."[1] The Commission made certain important recommendations among which are the following:

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[1] *Calcutta University Commission's Report*, Vol. V. p. 297.

1. The stage of admission to the university should be that of the present intermediate instead of that of the present matriculation.

2. There should be two secondary school examinations, the first, approximately corresponding to the present matriculation, to be taken at the end of the high school stage at the normal age of 16......and to be known as the high school examination; the second, approximately corresponding to the present intermediate, but much more varied in its range, to be taken at the end of the intermediate college course at the normal age of 18, and to be known as the intermediate college examination.

3. The duty of providing training at the intermediate stage should be transferred from the universities to new institutions to be known as "intermediate colleges", which should prepare not only for the degree courses in arts and sciences but also for careers in medicine, teaching, engineering, agriculture, commerce and industry. These colleges might be run as independent institutions or might to attached to selected high schools.

4. A Board of Secondary and Intermediate Education, consisting of the representatives of Government, University, High Schools and Intermediate Colleges should be established in each State and entrusted with the administration and control of secondary and intermediate education.[1]

This was for the first time that a commission suggested the transfer of intermediate classes to high schools and the need for setting up of an independent board of education to control high schools and intermediate education.

Hartog Report. — In the opinion of the Hartog Committee, the matriculation examination dominated the whole of the secondary course. The Committee, however, acknowledged that secondary education was well advanced in comparison with mass education, but it pointed out the large failure at the matriculation examination as mere wastage. To eliminate this wastage, the Committee suggested:

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[1] *Ibid.*, pp. 298-299.

1. The retention in the middle vernacular schools of more of the boys intended for rural pursuits, accompanied by the introduction of a more diversified curriculum in those schools; and

2. The diversion of more boys to industrial and commercial careers at the end of the middle stage, for which provision should be made by alternative courses in that stage, preparatory to special instruction in technical and industrial schools.[1]

Abbott-Wood Report. — In 1936-37, two English experts, Messrs Abbott and Wood, were invited to advise the Government of India "on certain problems of educational reorganisation and particularly on problems of vocational education."[2] The report of Messrs Abbott and Wood suggested a complete hierarchy of vocational institutions parallel to the hierarchy of institutions imparting general education.

Sargent Report. — The main recommendations of this report, so far as secondary education is concerned, are as follows:

1. The High School course should cover six years and the normal age of admission should be about eleven.

2. Entry to High Schools should be on a selective basis; only those pupils should be admitted who show promise of taking full advantage of the education provided.

3. In accordance with the general principle set out in (2) above, places in High Schools should be provided for at least one child in every five of the appropriate age-group.

4. In order to secure the right children, the methods of selection to be employed will require the most careful consideration. Special arrangements will have to be

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[1] *Hartog Report*, p. 107.

[2] *Abbott-Wood Report*. p. 1.

made for the transfer from Senior Basic (Middle) Schools to High Schools of suitable children and particularly of those who show signs of late development.

5. High Schools should be of two main types: (a) Academic and (b) Technical. The objective of both should be to provide a good all-round education combined with some preparation in the later stages for the careers which pupils will enter on leaving school.

6. The curriculum in all cases should be as varied as circumstances permit and should not be unduly restricted by the requiremnts of Universities or examining bodies.[1]

Conclusion. — Such were the main recommendations regarding secondary education of some important reports of this particular period. It should, however, be pointed out that there was an enormous expansion of secondary education. During 1947-48, there were 12,693 secondary schools with an enrolment of 2,953,995 pupils.[2] The corresponding figures for 1916-17 were 4,883 and 924,770.[3]

Several causes contributed to this rapid expansion: (1) there was a general demand for secondary education mostly due to the awakening among the masses, (2) a number of secondary schools were established in rural and semi-urban areas with a view to bringing secondary education within an easy reach of the children of those localities, and (3) secondary education made a progress amongst women and less advanced communities.

Several improvements were also noticeable in secondary education: (1) The friction between universities and education departments was removed. The universities automatically included all recognised departmental schools in their lists of approved schools. (2) English ceased to be the only medium of instruction and the mother-tongue was adopted as an alternative medium of instruction. (3) The curricula were widened and vocational courses were provided in response to a great demand for secondary education with a definite bias towards scientific and technological learning. (4) The standard of teaching also improved considerably owing to the rise in the percentage of trained teachers. But the general state of affairs was far from satisfactory.

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[1] *Sargent Report.* pp. 26-27.

[2] *Seven Years of Freedom.* p. 4.

[3] S. N. Mukerji. *History of Education in India, op. cit.*, p. 256.

Such was the position of secondary education towards the end of the British rule in this country. The main contributions of British educational policy towards secondary education have been very well summed up in the following words:

> When the present position is viewed in its proper historical perspective, it seems reasonable to conclude that the secondary school system suffers from arrested development; it has failed to keep pace with the changes — social and political, economic and industrial which have gone to the making of modern India, and it has failed to keep abreast of the latest developments in educational theory and practice. Schools are weighed down by the incubus of Matriculation and fettered by regulations governing 'recognition'; courses are bookish and theoretical and provide little to attract pupils with a practical turn of mind; the excessive use of English as the medium of instruction places a severe psychological burden on both pupils and teachers — it stifles individuality, encourages memorisation and makes instruction lifeless and mechanical; scientific and practical subjects are neglected and inadequate provision is made for outdoor games and other recreational activities. The whole school system is rigid and inelastic and is characterised by a dull and monotonous uniformity. On the whole, India has been well served by expert advice but, despite the recommendations of various committees and commissions, little has been done to adapt an outworn system to the conditions of modern life. Indeed, it is only a slight

exaggeration to say that the Indian high school with a few notable exceptions is much the same today as it was in 1904 and but little changed from what it was as far back as 1884.[1]

DEVELOPMENTS SINCE INDEPENDENCE. — After independence, three important bodies examined the problems of secondary education, viz., Tarachand Committee (1948), University Education Commission (1948-49), and Secondary Education Commission (1952-53).

Tarachand Committee. — Among other important recommendations, the Committee suggested that secondary schools should be of the multipurpose type though unipurpose schools were not to be discouraged. It also urged on the necessity of appointing a commission for inquiring into the problems of secondary education.

University Education Commission. — This Commission which had to report primarily on university education in India, also reviewed the position of secondary education and made certain notable suggestions. It remarked that secondary education is the real weak spot in our entire educational machinery. The Commission suggested that the standard of admission to the university courses should correspond to that of the present intermediate examination, i.e., after the completion of 12 years of study at a school and an intermediate college.

Secondary Education Commission. — On the recommendations of the Tarachand Committee and the CABE, the Government of India appointed a commission on September 23, 1952, under the chairmanship of Dr. A. Lakshmanaswami Mudaliar, the Vice-Chancellor of Madras University. The Commission was directed to examine the prevailing system of secondary education in the country and to suggest suitable measures for its reorganisation and improvement. The Commission submitted its report in June, 1953, and made detailed recommendations on various aspects of educational reconstruction but the three most important reforms suggested by it were:

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[1] H. V. Hampton. "Secondary Education." *The Educational System.* Bombay, O.U.P., 1943. pp. 30-31.

1. *The Reorganized Pattern of Education.* — The pattern envisaged by the Commission and as modified by the CABE was to consist of: (a) eight years of integrated elementary (Basic) education for children in the age-group of 6-14; (b) three years of secondary education with a marked diversification of subjects so as to cover the period from 14 to 17; and (c) three years of university education after the higher secondary school, leading to the first degree;
2. The diversification of secondary curriculum through the conversion of selected high schools into multipurpose schools; and
3. A reform in the examination system to suit the new objectives of education.

The Commission's recommendations were integrated in the successive five-year plans and began to be implemented, both at the Centre and in the States, in 1954. The most important features of the programme comprised: (1) provision of more schools for the age-group 14-17; (2) upgrading of high into higher secondary schools; (3) conversion of high into multipurpose schools; (4) provision of adequate teacher supply; (5) in-service programme of teacher education through the agency of Extension Services Departments; and (6) other ancillary schemes such as the training of teachers in the new subjects, improvement of facilities for teaching science, improvement of school libraries, etc.

Conclusion. — The expansion of secondary education during recent years has been phenomenal. The progress is evident in the total number of schools as well as in their total pupil enrolment. The total number of secondary schools rose from 12,693 in 1947-48 to 20,884 in 1950-51, 32,568 in 1955-56, and 66,916 in 1960-61. During this period, the pupil enrolment increased from 29,53,995 in 1947-48 to 52,32,009 in 1950-51, 85,26,509 in 1955-56 and 1,80,26,594 in 1960-61. The increase in expenditure has also been striking from nearly fourteen crores of rupees in 1947 to thirty-one crores in 1950-51 fifty-one crores in 1955-56 and one hundred and ten crores in 1961-62.

But, in spite of these attempts, it is generally agreed that secondary education represents the weakest link in India's education chain today.

CLASSIFICATION OF SCHOOLS. — Secondary education consists of two stages, namely, middle and high. Middle education is imparted in middle schools as well as middle departments of high and higher secondary schools. Similarly, high school education is imparted in high and higher secondary schools and sometimes in such classes attached to colleges also. During 1958-59, the middle stage consisted of three classes in most of the States and of two or four in a few others. The high/higher secondary stage consisted of five classes in one State and four classes in the majority of the states while in others it extended over to two or three classes. On the whole, the entire secondary school course was completely covered in eight years in one State, seven years in 6 States, six years in 8 States and five years in 4 States. The duration of the secondary stage differed within those States which were seriously affected by the Reorganisation of States in 1956. However, in the States of Andhra Pradesh, Madhya Pradesh, West Bengal and Mysore and Territory of Pondicherry, the system of school classes was made uniform. Variation, however, still persisted in a few other States.

SCHOOLS AND ENROLMENT.— Table 27 gives an idea of the different types of secondary schools, the number of institutions of each type along with their pupil enrolment.

TABLE 27*

Secondary Schools and Enrolment, 1960-61

Types	Institution			Enrolment		Total
	Boys	Girls	Total	Boys	Girls	
Post-Basic ..	27	4	31	3,099	1,241	4,340
Higher Sec. ..	3,816	838	4,654	19,87,243	5,09,093	24,96,336
High ..	10,893	1,679	12,572	36,95,001	13,15,837	50,10,838
Middle:						
Basic ..	12,984	1,337	14,321	23,19,308	9,00,790	32,20,098
Non-Basic ..	32,013	3,329	35,342	48,79,266	25,11,478	73,90,744
Total ..	59,733	7,587	67,320	1,28,83,877	53,37,439	82,21,316

* *Education in the States, 1960-61.* pp. 2-3.

To have a correct appraisal of secondary education, it is however necessary to eliminate pupils of primary stage studying in secondary schools and include those reading in secondary classes attached to some of the colleges.

It may be noted that the number of pupils in the age-group 11-17 attending schools is gradually rising. This will be evident from the following statistics:

TABLE 28@

Growth of Facilities for Education of Pupils in the age-group 11-17.

Year	Percentage of Population in the Age-group 11-14			Percentage of Population in the Age-group 14-17		
	Boys	Girls	Total	Boys	Girls	Total
1950-51	20·7	4·5	12·7	5·4	1·7	5·4
1951-52	22·0	4·9	13·7	6·1	1·8	6·1
1952-53	22·6	5·3	14·2	6·5	2·0	6·5
1953-54	23·5	5·9	15·9	6·7	2·1	6·7
1954-55	24·3	6·3	15·5	7·0	2·3	7·0
1955-56	25·5	6·9	16·5	8·0	2·8	8·0
1956-57	26·4	7·7	17·3	9·1	3·0	9·1
1957-58	29·2	8·8	19·3	9·2	3·4	9·2
1958-59	29·5	9·1	19·5	9·4	3·5	9·4
1959-60	31·5	10·2	21·2	10·6	3·9	10·6
1960-61	34·3	10·8	22·8	11·8	4·3	11·8
1961-62*	34·9	12·2	23·8	19·7	4·8	12·5
1962-63*	36·3	13·3	25·1	20·8	5·5	13·3
1965-66†	39·9	16·5	28·6	25·0	7·3	16·4

@ Government of India. *Programmes of Development (1961-66).* Unpublished. pp. 15-16.

* Anticipated. † Targets.

The growth of secondary education is bringing in new problems, since the number of schools has not increased sufficiently to cope with the number of children seeking admission. Consequently there has been a pressure and strain on the existing schools, without any proportionate increase in building facilities, equipment or even teachers. Consequently, schools are working like factories and class-rooms are overcrowded. And thus a large number of pupils are being educated on the strength of the resources that were intended to educate a smaller number of pupils.

MANAGEMENT. — Secondary schools are managed by government, local boards and private organizations. Some of the private organisations receive aid from public funds for running their educational institutions. Table 29 gives the distribution of middle school and high/higher secondary schools by managements.

TABLE 29*

Distribution of Secondary Schools by Management, 1959-60

School	Schools Managed by				Percentage of		
	Government	Local Boards	Private Bodies	Total	Government Schools	Board Schools	Private Schools
Middle ..	7,367	22,756	11,858	41,921	17·4	54·3	28·3
High/Higher Secondary ..	2,846	1,826	10,031	15,703	18·1	11·6	70·3

* *Education In India*, 1959-60, Vol. I. pp. 105 and 309.

It will be clear from the above table that while the majority of high and higher secondary schools are managed by private bodies, in the case of middle schools that position goes to local boards. In fact during recent years the number of middle schools under local boards has been continuously rising, while that under government and private managements has been declining.

ADMINISTRATION. — Secondary education is a responsibility of the States. The State Department of Education works under the direct control of the Education Minister, who has a Secretary to assist him at the secretariat level and a Director of Education as the excecutive head of the Department. Some of the States have set up Secondary Education Committees for advising the Government on matters of secondary education. These committees consist of official and non-official members.

It may, however, be noted that besides the Ministry and the Department of Education, there are other Departments and Ministries in the States as well as at the Centre, directly concerned with education. The Ministry of Agriculture, the Ministry of Industry and Commerce, the Ministry of Transport and Communications, the Ministry of Information and Broadcasting, and the Ministry of Labour have, under their control, schools and colleges pertaining to their respective specialised branches. Often these different departments are not in touch with one another's activities, hence there is wastage of money and effort.

But the State Department of Education more or less controls secondary education. It lays down conditions regulating the procedure to be adopted for the recognition of schools, awards grants to private institutions, fixes rules regarding administration of schools, prescribes courses and selects text-books for all standards except the matriculation.

The Director is assisted by deputy directors and a large body of divisional or district inspectors or inspectresses. Table 30 gives an idea of the total number of posts for direction and inspection in the country.

TABLE 30

Total Number of Posts for Direction and Inspection, 1959-60

Item	*Class I*	*Class II*	*Total*
Men	263	937	1,200
Women	24	121	145
Total	287	1,058	1,345

* *Education in India*, 1959-60, Vol I. p. 33

With this meagre staff, the administration of the entire educational system of this big subcontinent is carried out. And it is no wonder that the Secondary Education Commission remarked:

> The present system of inspection of schools was subjected to criticism by several witnesses. It was pointed out that inspections were perfunctory, that the time spent by the inspector at any particular place was insufficient...[1]

It may also be noted that some States have also established boards of intermediate and/or secondary examination. These have been set up on the recommendations of the Calcutta University Commission. In 1961 there were fifteen bodies of this type. The names of these bodies along with the examinations conducted by them, are given below:[2]

1. Bihar School Examination Board, Patna: f. 1952; *Jurisdiction* Bihar State; *Exams. conducted* Secondary School, Higher Secondary School, Dip. and Cert. in Physical Education, Cert. in Social Education.

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[1] *Secondary Education Commission's Report*, p. 193

[2] Government of India. Directory *Institutions for Higher Education*, 1961. pp. 133-34

2. Board for Public Examination, Trivandrum: f. 1949; *Jurisdiction* Kerala State; *Exams. conducted* Secondary School Leaving Certificate, Kerala Govt. Tech. Exam., Teachers' Training Cert., Post Basic Scholarship Cert., Post Graduate Dips. in Basic Education, Needle Work & Garment Making, Music, Dance, Arabic Munshi, Sanskrit, Nursery Exams. and Diplomas in Engg., Tech. and Text. Tech., Dip. & Cert. in Physical Educ., Cert. of Painting of the Ravi Varma School of Painting.

3. Board of Higher Secondary Education, Delhi: f. 1926; *Jurisdiction* Delhi Administration; *Exams. conducted* High School, Higher Secondary, Higher Secondary Technical, Higher Secondary Multipurpose Part I, Rattan, Bhushan, Prabhakar, Prabodh, Pravin & Pragya.[1]

4. Board of High School and Intermediate Education, Uttar Pradehs, Allahabad; f. 1922; *Jurisdiction* Uttar Pradesh (except areas of Aligarh & Banaras Hindu Universities); *Exams. conducted* High School, Intermediate, High School Technical and Intermediate Technical.

5. Board of Secondary Education, Andhra Pradesh, Hyderabad: f. 1957; *Jurisdiction* Andhra Pradesh; *Exams. conducted* Secondary School Leaving Cert., Higher Secondary Cert. and Multi-purpose & Higher Secondary School Leaving Cert.

6. Board of Secondary Education, Madhya Pradesh, Bhopal: f. 1959; *Jurisdiction* Madhya Pradesh; *Exams. conducted* High School Cert., Higher Secondary School Cert., Higher Secondary School Cert. (Technical), Prep./Pre-Univ., Secondary School Cert., Agri. course, Intermediate.

7. Board of Secondary Education, Madras: f. 1911; *Jurisdiction* State of Madras and some schools in Pondicherry; *Exam. conducted* Secondary School Leaving Cert.

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[1] The Three examinations of Prabodh, Praveen and Pragya are governed by a Scheme of the Central Ministry of Home Affairs and are open to all Govt. employees in India and abroad.

8. Board of Secondary Education, Orissa, Cuttack: f. 1956; *Jurisdiction* State of Orissa; *Exam. conducted* High School Cert. and Higher Secondary School Cert.

9. Board of Secondary Education, Rajasthan, Jaipur: f. 1957; *Jurisdiction* Rajasthan; *Exams. conducted* High School and Higher Secondary.

10. Board of Secondary Education, West Bengal, 77/2, Park Street, Calcutta: f. 1951; *Jurisdiction* West Bengal, Tripura, Sikkim and A. & N. Islands; *Exams. conducted* Secondary School Final and Higher Secondary School Final.

11. Central Board of Secondary Education, Ajmer: f. 1929; *Jurisdiction* not defined; *Exams. conducted* High School Cert. and Intermediate.

12. Gujarat Secondary School Certificate Examination Board, Baroda: f. 1960; *Jurisdiction* Gujarat State; *Exam. conducted* Secondary School Cert.

13. Secondary Education Board, Mysore State, Bangalore: f. 1913; *Jurisdiction* Mysore State; *Exams. conducted* Secondary School Leaving Cert. and Multi-purpose Higher Secondary Cert.

14. Secondary School Certificate Examination Board[1], Maharashtra State, Poona: f. 1960; *Jurisdiction* State of Maharashtra (excluding the area under the Vidarbha Board); *Exam. conducted* Maharashtra Secondary School. Cert.

15. Vidarbha Board of Secondary Education, Nagpur: f. 1922; *Jurisdiction* Districts of Akola, Amravati, Bhandara, Buldhana, Chanda, Nagpur, Wardha and Yeotmal in Maharashtra State; *Exams. conducted* Secondary School Cert., Higher Secondary School Cert. (Tech.), Vocational High School Cert.

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[1] So far as the Districts of Marathwada are concerned, this Board has been conducting the Higher Secondary Cert. Exam. since March, 1958 and Higher Secondary (Multi-purpose) School Cert. Exam. since March, 1960 for candidates coming from M. P. Schools in Marathwada.

Quite recently, a Central Board for Higher Secondary Education has been set up by the Indian Ministry of Education for conducting a common all-India higher secondary examination. It will cater to the needs of children of Union Government employees and will make its services available to any secondary schoool in or outside India wishing to prepare candidates for its examination.

The Sainik schools, about 100 educational institutions in the different States and some of the public schools are expected to seek affiliation to the board. Two media of instructions — Hindi and English — are allowed in the examination but provision will also be made for other regional languages as well as some foreign languages in the courses of study.

Another important function of the central board will be to advise the administration of Union territories on the courses of instruction in middle school education so that co-ordination between middle schools and secondary schools can be ensured. The board is an autonomous body but the supreme control vests in the Union Government. Among the members of the board are more than 40 experts in education, engineering, agriculture, medicine, industry, commerce, fine arts and home science, and three vice-chancellors elected by the Inter-University board.

The well-known educationist, Mr. G. C. Chatterjee, has been named as the whole — time chairman of the board.

The Delhi Board of Higher Secondary Education will merge in the central board.

FINANCE. — The source-wise distribution of expenditure on middle and high/higher secondary schools is shown in Table 31.

TABLE 31*

Direct Expenditure on Middle and High/Higher Secondary Schools by Sources, 1959-60

Source	Middle School		High/Higher Secondary School	
	Amount	Percentage	Amount	Percentage
Government Funds ..	25.83,75,406	73·5	28,79,88,797	48·1
District Board Funds ..	1,69,15,927	4·8	1,77,26,169	3·0
Municipal Board Funds	2,53,33,071	7·2	92,96,733	1·5
Fees ..	2,92,16,245	8·3	23,52,14,224	39·4
Endowments ..	71,90,777	2·0	1,86,79,768	3·1
Other Sources ..	1,45,62,633	4·2	2,91,25,562	4·9
Total ..	35,15,94,039	100·00	59,90,31,253	100·00

* *Education in India, 1959-60, Vol. I.* pp. 115 and 130.

It will be seen that (a) the major portion of the expenditure came from government funds and that this percentage was very high so far the middle schools were concerned, and (b) unlike in middle schools, the income from fees was one of the major sources supporting high/higher secondary education.

Educational institutions under private management are given grant-in-aid to assist them in the expansion and improvement of their educational facilities, but the amount varies from State to State. The grants given may be for *any* of the following purposes:

1. Payment of stipends to teachers under training;
2. Payment of medical officers for medical inspection;
3. Maintenance in boarding homes of orphans;
4. Construction and extension of school buildings and hostels;
5. Furniture, apparatus, chemicals, and books for library;
6. Acquisition of lands for school buildings, hostels or playgrounds;

7. Crafts or industrial education;
8. Maintenance grant.[1]

But grants for all these purposes are not given by all States. The Government of India also gives grants to States for approved items. During the First Plan period, the Government of India gave grants for the conversion of 470 schools into multipurpose ones with 944 courses. Assistance was also given for the improvement of teaching in social studies in 1,072 schools, science teaching in 214 schools, 1,479 school libraries and for the introduction of crafts in 1,199 middle schools.[2] Grants were also sanctioned for the training of teachers at 10 centres and 13 training colleges. To encourage research in problems of secondary education, financial assistance was given to 21 institutions with 31 projects.[3] During the First Five-Year Plan period and the first year of the Second Plan, central assistance for these schemes was made available at 66 per cent. of the approved non-recurring and 25 per cent. of the approved recurring expenditure. The total assistance granted was about Rs. 5·19 crores.

THE ALL-INDIA COUNCIL FOR SECONDARY EDUCATION (AICSE).— Based on the recommendations of the Secondary Education Commission, the Government of India established the AICSE at the centre on March 22, 1955. It reviewed the progress of secondary education throughout the country and served as an expert body advising the Central and State Governments on the improvement and expansion of secondary education in all its phases.

All executive functions, performed by the original AICSE, have now been entrusted to a separate Directorate of Extension Programmes for Secondary Education (DEPSE), which is at present a department of the National Council of Educational

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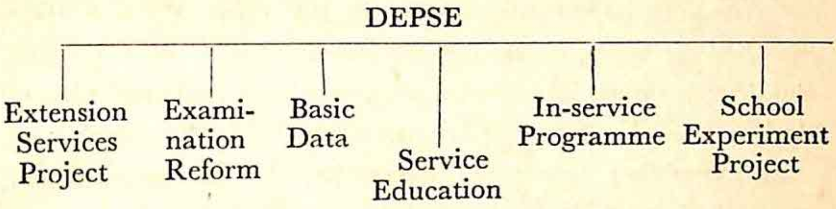
[1] *Secondary Education Commission's Report*. p. 221.
[2] *India*, 1959. p 76.
[3] *Ten Years of Freedom*. p. 6.

Research and Training[1] The names of different units of the DEPSE are given below:



CURRICULUM. — The secondary curriculum generally includes: (1) English, (2) mathematics, (3) mother-tongue, (4) history and geography, (5) science and (6) a classical language. Vocational subjects have also been introduced in some States. Commenting on the defects of the existing curricula, the Secondary Education Commission observed:

> 1. The present curriculum is narrowly conceived:
> 2. It is bookish and theoretical;
> 3. It is over-crowded, without providing rich and significant contents;
> 4. It makes inadequate provision for practical and other kinds of activities which should reasonably find room in it, if it is to educate the whole of the personality;
> 5. It does not cater to the various needs and capacities of the adolescents;
> 6. It is dominated too much by examinations; and
> 7. It does not include technical and vocational subjects which are so necessary for training the students to take part in the industrial and economic development of the country.[2]

Since the publication of the Tarachand Report[3], there is a strong movement for the diversification of the courses at the secondary stage. It is also generally agreed that the unilinear character of the prevailing system is one of its major defects. Attempts are also being made to give a strong vocational bias at this stage. New types of high schools devoted to technical, agricultural and commercial subjects are being established and strengthened. For example, in the Uttar Pradesh there are now six types of courses for high schools, viz., literary, scientific, commercial, constructive, aesthetic and agricultural. Madras has also bifurcated courses at the high school stage consisting of four types: (a) secretarial, (b) pre-technological, (c) aesthetic and domestic, and (d) teaching practice courses. The movement has been further intensified as a result of the recommendations of the Secondary Education Commission.

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[1] *Supra* p. 19.

[2] *Secondary Education Commission's Report*, p. 79.

[3] *Supra* p. 125.

Attempts are also being made to enrich the curricula by introducing new subjects like civics, music, crafts and various types of educative and recreative activities like the Junior Cadet Corps, Auxiliary Cadet Corps and Voluntary Social Services.

ACCOMMODATION AND EQUIPMENT. — Buildings and equipment continue to be unsatisfactory, in spite of the fact that attempts were made in some States to construct new buildings and class-rooms and renovate some of the existing ones. This was mainly due to the rapid expansion of secondary education. The existing schools had to admit more students, and they have not sufficient resources to build more class-rooms and expand their buildings. New high, higher secondary or multipurpose schools have also been started without adequate appliances and equipment and the buildings are not quite upto the mark. On the whole, the position of government schools is comparatively better.

EXAMINATION. — Examinations, internal and external, are a common feature of our secondary schools. The internal examinations are conducted by schools from time to time for grading and evaluating the progress of pupils, for encouraging their progress and for promoting them to higher classes. Some schools hold terminal examinations, and some weekly or monthly tests. But the annual examination is the most important test, because the students are generally promoted to the higher standard mainly on the basis of this test.

The external examination comes generally at the end of the school stage, and is known as the Matriculation or its equivalent — the School Final or School Certificate examination. It may be noted that more than fifty per cent. of candidates fail to pass this external examination. This can be evident from the following table:

TABLE 32

Results Of Matriculation And Equivalent Examinations

Year	Number Appeared	Number Passed	Pass Percentage
1951-52	583,470	261,059	44·7
1952-53	724,799	334,760	46·2
1953-54	818,620	397,005	48·5
1954-55	830,001	400,014	48·2
1955-56	920,026	429,494	46·7
1956-57	1,012,309	466,764	46·1
1957-58	1,079,966	521,552	48·3
1958-59	1,175,706	530,136	45·1
1959-60	1,349,465	572,369	42·4

In fact, the greatest evil from which our secondary education is suffering at present is the matriculation examination. Worse than India's community-ridden, social and political system is her examination-ridden educational system. The matriculation examination dominates the entire work of our secondary schools. The prestige of a school depends entirely upon matriculation results and very little on real educational merits of the institution. The capacity of a teacher is judged from the percentage of passes in the subject that he handles. The fate of a child depends not on his mental calibre, but on his performance at that examination. The school's freedom, the teacher's zeal, the head-master's initiative and the pupil's love for learning are sacrificed at the altar of that examination.

The child's real needs are completely ignored and his individuality is not properly developed. He has to depend on memorisation, and even the brightest child has to practise rote-learning. The scare and anxiety that the examination causes are incalculable. The innocent child is obliged to sacrifice his health, nay even his very personality, for obtaining a scrap of paper with a university seal. Even the best teacher cannot do justice to his profession, as he has to keep the requirements of the matriculation examination in the forefront. A clever teacher knows what to teach and what to drop from the prescribed syllabus. Naturally teaching becomes lifeless, and the latest developments in educational theory and practice are left behind to take care of themselves. Thus the matriculation examination like the great wall of China obstructs a free flow of real learning or education. The system chills the enthusiasm of even some of the ablest headmasters, as it does not leave any room for experimentation. Often they are snubbed by superior authorities, when they go out of the ordinary daily routine. It is no wonder, therefore, that our secondary schools have failed to produce an Arnold or a Miss Beale.

PROBLEMS OF SECONDARY EDUCATION

INTRODUCTION. — Today secondary education is a hot bed of controversies, in spite of the most careful nursing by the British Government for more than centrury. At the same time, new ideologies of education have come in the forefront and the content of knowledge has increased considerably during recent years. There is also an increasingly clamant demand for ensuring equality of opportunity without which neither freedom not democracy can have meaning for the people. Our social, political, economic and educational policies are being oriented so as to bring about a reasonable measure of equality of opportunity as soon as possible. Thus the achievement of independence has also created new situations, conditions and requirements in education. It is no wonder, therefore, that our secondary schools are bitterly criticised, because they have no aim, the standard of teaching is too low, and there is laxity and confusion in control. They provide only general education and not vocational training. They cater to the needs of a few and fail to provide proper guidance to pupils. The entire teaching is again not related to life, encourages rote-learning, and is dominated by examinations and urban requirements. In short, the secondary education of this country is faced with the following vital problems today: (1) aim, (2) its boundaries, (3) pattern, (4) curriculum, (5) provision of special schools, (6) need for guidance, (7) administration, (8) management, (9) finance, (10) evaluation and examination, and (11) corporate life of pupils. Let us go into the details of these problems.

AIM. — It is rightly pointed out that secondary education in India suffers from aimlessness, its primary aim being to prepare children either for entrance into the university or for clerical jobs This objective, if it can be justified, has been more than satisfied. Colleges are being clogged with undeserving students, and unemployed matriculates are running amuck for getting a job on a couple of rupees per day. Unfortunately, secondary education is a victim of its own traditions. English schools were originally started for satisfying administrative needs of the East India Company. But the expansion of education in India did not result in a proportionate increase in jobs. On a careful examination, it is found that of the students who pass the matriculation examination 50-55 per cent actually go up for intermediate education, while the remaining 45-50 per cent do not.[1] As such a secondary school must be designed to be more than a "mere anteroom to the university."[1] The secondary stage should be both terminal in character and preparatory for higher education. It should train some for life and others for admission to university.

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[1] *University Education Commission's Report.* p. 88.

The aim of secondary education as such is both cultural and utilitarian. It should also be appreciated that secondary education determines the quality of a nation's cirizens, since it deals with children between 11 and 17 or 18 which is the most precious period in an individual's life having the greatest psychological and physiological significance. Our secondary school should, therefore, help the youth to build up his physique and to develop his intellectual and practical powers according to his ability and special aptitudes. It should further help them to increase their practical and vocational efficiency so that they may be able not only to stand on their own legs at the end of their educational career but may also be able to play their part effectively in building up the economic prosperity of the country.

Another great factor, which we have to reckon with, is the recent attainment of independence by the country. The secondary schools of Free India should aim at "the training of character to fit the students to participate creatively in the emerging democratic social order."[2] They should also provide what one may call "leadership at the intermediate level". It is indeed true that India has a number of top-ranking leaders, but we also need a large number of intermediate leaders, who will assume the responsibility of leadership in their local communities and their vocational groups. Unfortunately our secondary education has never been mindful of this special need and has never looked to the needs of this "middle class". It will, therefore, be necessary for secondary schools of Free India to assume that important role. While a country's reputation abroad may depend on our first-rate leaders, its true prosperity and progress will depend on its matriculates whose honesty, hard-work and devotion will alone make it possible for the leaders to lead and the masses to follow their lead.

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[1] *Abbott-Wood Report*. p. 17.

[2] *Secondary Education Commission's Report*, p. 24.

SECONDARY EDUCATION'S BOUNDARIES. — Secondary education is the connecting link between primary education and higher education. But one gets confused by the clash of the old and the new terminologies in the field of education. We hear about pre-basic, junior basic, senior basic and post-basic schools, and we also hear about primary or elementary schools, middle schools or lower secondary schools, and junior high schools, high schools and higher secondary schools. Let us resolve to use three terms only, viz., elementary education, secondary education and higher education. Until and unless these three stages are harmonised properly, it will not be possible for our educational system to provide for every pupil an uninterrupted, continuously adjusted education until he reaches the maximum possible development.

Let us now consider first of all the harmonisation of elementary education and secondary education. At present the duration of both the elementary and secondary stages varies according to States. Since the basic system of education has been recognised to be the national system of education and since the State Governments are trying to introduce junior basic education as quickly as possible, our elementary education should cover the age group of 6 to 11.

This stage will be followed by the secondary stage. What should be the duration of this stage? The Secondary Education Commission has recommended the following structure for secondary education after 4 or 5 years of primary or junior basic education:

1. A Middle or Junior Secondary or Senior Basic stage which should cover a period of 3 years;

2. A Higher Secondary stage which should cover a period of four years.[1]

In this connection, it may be pointed out that the Commission has rightly included the senior basic stage within the age-group of secondary education. It has also suggested that the period of training at the secondary stage should be raised, since "at present the standard attained by students who seek admission to the University and to other higher courses is low and that the average age of entrance is also low.'[2] For achieving that end, the Commission has proposed the abolition of the present intermediate stage to be replaced by the higher secondary stage, which will be of four years' duration, one year of the present intermediate being included in it.[3] As a consequence of this, the Commission has further suggested that:

1. The first degree course in the university should be of three years' duration.

2. For those who pass out of the high school there should be provision for a pre-university course of one year, during which period the scheme of studies should be planned with due regard to the needs of the degree or the professional course to be taken by the students.[4]

The Government of India, with the active cooperation of State Governments, Universities and Boards of Secondary Education considered the recommendations of the Secondary Education Commission. Ultimately, the CABE and the Conference of Vice-Chancellors, convened in 1955, recommended a pattern of education which would compose:

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[1] *Ibid.*, pp. 33-34.

[2] *Ibid.*, p. 32.

[3] *Ibid.*, p. 243.

[4] *Loc. cit.*

1. Eight years of integrated Elementary (Basic) education. This stage will generally cover the period from 6 to 14...

2. Three years of higher secondary education with diversified courses, to give a vocational bias to this stage of education and to make it both a terminal point to enter life and a preparation for further studies. This will generally cover the period for 14 to 17...

3. Three years of university education after the higher secondary school, leading to the first degree.

The intention in organising a three-year secondary stage was to extend it by one year in those States, where the total schooling was for a duration of ten years only. The eleven-year programme was designed to secure an enriched curriculum, particularly for those for whom this was to be the terminal point in their education. The higher secondary course was to include social studies, the physical and natural sciences, three languages and rudiments of crafts as compulsory subjects, and, in a majority of schools, a choice of three subjects from the commonly provided groups of electives, namely, humanities and science. The additional year was to be taken from the two-year Intermediae stage, the latter half of which was tagged on to the university, making a three-year course for the first degree.

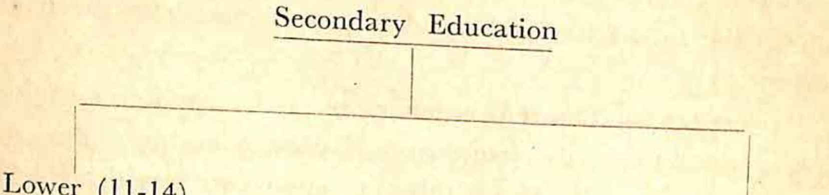
PATTERN. — The Government of India envisages eight years of integrated elementary (Basic) education. But it will be necessary to break this stage into two periods: (1) 6 to 11, and (2) 11 to 14, since a large number of pupils may not like to continue their education in basic schools after 11 +. Universal compuslory education of the basic type for children in the age group 6-14 is no doubt the goal of our country, but it will take some time to achieve that end.

Our immediate aim is to provide elementary education to all children in the age group of 6-11. It should be definitely of five years' duration and not of four *or* five years as suggested by the Secondary Education Commission. After finishing this education, a child may be allowed to continue his education in a senior basic school or in a lower secondary (middle) school for a period of three years.

The period 11-14 is to be followed by the higher secondary stage, covering the period from 14 to 17. This stage will draw most of its pupils from the lower secondary school, but there cannot be any bar for the transfer of students from the senior basic school to this particular stage. It is, however, hoped that a fair proportion of the senior basic pupils will continue their education in post-basic institutions. The conference of Education Ministers held in 1956 suggested that:

> Arrangements should be made for the further education of children passing out of senior basic schools either in post-basic schools or in secondary schools and for this purpose, the question of facilities for academic instruction in senior basic and middle schools should generally be the same.[1]

The following diagram shows the suggested pattern for secondary education:



In this connection it may be recalled that the suggested higher secondary stage will include the programme of the first year course of the intermediate stage (the pre-university course). It has been planned for three years and not four years as contemplated by the Secondary Education Commission.

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[1] *Times of India*, September 3, 1956.

The new pattern will raise two serious difficulties: (1) upgrading existing high schools into higher secondary schools, and (2) the completion of the higher secondary course within a shorter duration, i.e., six years instead of in 7 or 8 years. Since most high schools are not at present well-equipped and may not be in a position to run the pre-university course immediately, it has been decided that the university should, during this transition period, organise this course in affiliated colleges or in the university itself. In the meanwhile, some of the existing high schools will be converted into higher secondary institutions. We need at least one such institution in every district, which should draw its students from neighbouring high schools.

Regarding the second difficulty, it may be pointed out that the duration of the secondary stage—middle and high—in the majority of States is six or seven years, and that this stage prepares students mostly for the matriculation or other high school leaving examinations. The new pattern is of a shorter duration and has a higher objective, i.e., the completion of the first year course of the intermediate stage. This is a serious challenge to our educationists and thinkers, specially when there is a universal deterioration in the high school standard. There is thus an urgent need for a better integration of the courses and more systematic teaching.

CURRICULUM. — The main defects of secondary curriculum have already been examined. In fact, the single-track character of our university education has been influencing secondary education too. A curriculum, having no variety and framed about a century ago, is still being generally pursued in all secondary schools throughout the length and breadth of this vast subcontinent. It, therefore, needs a thorough-going revision. There are several reasons for this.

One should note that the character of secondary school population has changed during the last fifty years. In 1901-02, the total enrolment in secondary schools was only 622,868; today (1960-61) it has jumped up to 180·2 lakhs—almost an increase thirty times. This means that a much wider range of social and economic background as well as of scholastic aptitude is represented in secondary schools than ever before. Secondary schools should be further prepared to meet the new influx of pupils, which the provision of free and compulsory education at the elementary stage is bound to create in the country within a very short period. Thus the aim of college preparation can no longer be the dominant purpose of the secondary school.

The increase in school population also shows the need for redressing the over-academic emphasis in schools and for prescribing a broad-based curriculum, catering, on the one hand, to special aptitudes of pupils, and, on the other hand, preparing them for the various occupations and industries on which the full development of our country depends.

Thus the secondary school course cannot be the same for all. There should be a larger amount of practical study, more in keeping with the demands of life and better adapted to the mentality and interests of different categories of pupils. It should be varied according to pupils' abilities, aptitudes and needs of future life. A great social wastage can thus be avoided, the needs of the nation can be satisfied, and children with a practical bent of mind can be eliminated from academic careers.

The Lower Secondary Stage. — The special function of the curriculum at this stage is to introduce the pupil to significant departments of knowledge. As such it should include language and literature, social studies, natural sciences and mathematics.[1] Besides these, art, music and craft should be given due importance, as they are the media for developing aesthetic sense in children. At the same time, it will also be necessary to include physical education which is essential for building up a healthy and balanced personality. Thus the curriculum should include:

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[1] *Secondary Education Commission's Report*. p. 87.

(1) Languages:

(a) Federal language (Hindi) — 3 periods.

(b) Mother-tongue (in areas where the mother-tongue happens to be Hindi, one modern Indian language as given in the Schedule VIII of the Constitution should be taught as the second compulsory language)— 3 periods.

(c) English *or* advanced mother-tongue *or* another Indian language[1] — 4 periods.

2. Social studies — comprising elements of history, geography and civics — 5 periods.

3. General science — 3 periods.

4. Mathematics — comprising arithmetic, elementary geometry and elementary algebra — 5 periods.

5. Art *or* music — 2 periods.

6. A craft (suitable to the locality — agriculture for rural areas) — 5 periods.

7. Physical education, social and cultural activities — 5 periods.

The regional language should be the medium of instruction. If, however, linguistic minorities in any area desire to learn through a different language the State may aid any private effort in that direction.

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[1] The importance of teaching the federal language and mother-tongue be hardly stressed. English will be offered by those, who want to prosecute their studies in a higher secondary school. Those, who do not want to do so, may study either advanced mother-tongue or another Indian language *other* than the languages offered under the first two groups. In short, a pupil will have to study three languages.

It may be noted that there is no need for separate types of courses for the senior basic and the lower secondary school, as it may create a kind of unhealthy caste distinction in education. The Secondary Education Commission points out:

> The main difference between the middle school and senior basic school courses will be in the method of approach and of teaching; but the educational programme, i.e., the subjects and courses to be covered and the activities undertaken, will as far as possible be similar.[1]

The curriculum at lower secondary stage should be broad-based, experience-centred and should avoid specialisation.

The Higher Secondary Stage. — While the curriculum at the lower stage will provide the common core of knowledge and will be more or less the same, there will be the need for a diversified curriculum at the senior stage. There are several reasons for that. First, the lower stage provides the necessary background of knowledge on which specialisation can begin. The special abilities and interests of the pupils also generally take definite form by this stage; hence the curriculum at the senior stage should be framed on the basis of pupils' abilities and interests. Moreover, we have to consider the needs of about fifty per cent. of the high school leavers who are not likely to go to the universities or higher technical and similar institutions. They will have to be educated for life, and hence they will have to be prepared in terms of specific vocations. Keeping in view these principles one will have to consider the recommendations of two important bodies regarding curriculum, viz., the Secondary Education Commission and the AICSE.

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[1] *Secondary Education Commission's Report*. pp 86-87.

(1) Recommendations of the Secondary Education Commission. — The Secondary Education Commission suggested that the curriculum at this stage should consist of the following:

A. *Languages.* — (i) Mother-tongue *or* Regional language *or* a composite course of the mother-tongue and a classical language; (ii) One other language to be chosen from among the following: (a) Hindi (for those whose mother-tongue is not Hindi), (b) Elementary English (for those who have not studied it in the middle stage), (c) Advanced English (for those who have studied English in the earlier stage), (d) A modern Indian language (other than Hindi), (e) A modern foreign language (other than English), (f) A classical language.

B. (i) Social Studies — general course (for the first two years only), (ii) General Science including Mathematics — general course (for the first two years only).

C. One *craft* to be chosen from the following list (which may be adapted to suit local needs): (a) Spinning and Weaving, (b) Wood-work, (c) Metal-work, (d) Gardening, (e) Tailoring, (f) Typography, (g) Workshop Practice, (h) Sewing, Needle-work and Embroidery, (i) Modelling.

D. *Three* subjects from *one* of the following *groups: Group I* (Humanities) — (a) A classical language or a third language from A (ii) not already taken, (b) History, (c) Geography, (d) Elements of Economics and Civics, (e) Elements of Psychology and Logic, (f) Mathematics, (g) Music, (h) Domestic Science. *Group II* (Science) — (a) Physics, (b) Chemistry, (c) Biology, (d) Geography, (e) Mathematics, (f) Elements of Physiology and Hygiene (not to be taken with Biology). *Group III* (Technical) — (a) Applied Mathematics and Geometrical Drawing, (b) Applied Science, (c) Elements of Mechanical Engineering, (d) Elements of Electrical Engineering. *Group IV* (Commercial) — (a) Commercial Practice, (b) Book-keeping, (c) Commerical Geography or Elements of Economics and Civics, (d) Shorthand and Typewriting. *Group V* (Agriculture) — (a) General Agriculture, (b) Animal

Husbandry, c) Horticulture and Gardening, (d) Agricultural Chemistry and Botany. *Group VI* (Fine Arts) — (a) History of Art, (b) Drawing and Designing, (c) Painting, (d) Modelling, (e) Music, (f) Dancing. *Group VII* (Home Science) — (a) Home Economics (b) Nutrition and Cookery, (c) Mother Craft and Child Care, (d) Household Management and Home Nursing.[1]

In this connection it may be noted that the Commission has suggested as many as seven alternative groups of subjects so as to suit the needs of different types of students. But irrespective of specialisation, subjects under A, B and C will be common and compulsory for all students. This is necessary for avoiding narrow specialisation and for giving every student a reasonable amount of general education. This is necessary for every individual as a human being and as a citizen to discharge his duties intelligently in the greatest of all arts — the art of living.

(2 AICSE's Recommendations. — The Secondary Education Commission's recommendations were considered by a number of bodies. Over the language problem, the AICSE at its meeting held on January 11, 1956, decided that every pupil in the higher secondary school should be required to study three languages. The CABE accepted the recommendations of the AICSE and drew the following two formulas which were submitted to State Governments for their consideration:

> *First Formula:* (1)(A) The mother-tongue, *or* (B) the regional language, *or* (C) a composite course of the mother-tongue and a regional language, *or* (D) a composite course of the mother-tongue and classical language, *or* (E) a composite course of regional and classical languages. (2) Hindi *or* English, (3) A modern Indian *or* a modern European language provided it has not already been taken under (1) and (2) above.

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[1] *Ibid.* pp 92-94.

Second Formula: (1) As above. (2) English or modern European language. (3) Hindi (for non-Hindi-speaking areas) *or* another modern Indian language (for Hindi-speaking areas.)

According to each of the above formulas, a pupil will have to study three and not two languages as envisaged by the Secondary Education Commission. But in the above analysis, the classical language has been relegated to a very subsidiary position, as there is no independent course in that language. Such a haphazard study is not desirable. By the time a pupil leaves the high school, he should have a sufficient knowledge of the language he learns. Thus a more careful thinking is necessary in this respect. The following formula shows another possibility of grouping the languages:

1. The federal language *or* another Indian language in areas where the regional language happens to be Hindi.
2. *Two* other languages to be taken from the following: (a) an Indian language *not* covered under 1, (b) a classical language, (c) English and (d) a modern European language (other than English).

The study of the federal language should be compulsory for every Indian, as Hindi has to serve as the medium of expression for all the elements of the composite culture of India. But at the same time, every Hindi-speaking pupil should study another Indian language. There cannot be two opinions on the subject. Just as a non-Hindi child has to learn Hindi, a Hindi-speaking pupil should learn another Indian language.

Keeping in the forefront his future needs, a pupil should select two languages from the second group. Since English is an international language and a compulsory subject for the university stage, it will have to be offered by the majority. The pupil should further select another language suiting his own aptitude and tastes. It may be an Indian language *or* a classical language *or* a modern European language (other than English).

It is just probable that some senior basic pupils may join a high school, and may like to study English. It is not desirable to provide a course in Elementary English as suggested by the Secondary Education Commission. Such pupils should study English privately, and the schools should satisfy themselves about the pupils' knowledge of English before admitting them. Prior to independence, this was the practice in vogue in a number of States, when pupils were transferred from the vernacular middle school to the high school. It should be realised that the Assessment Committee on Basic Education has already suggested that English should be offered as an optional subject in basic schools from the sixth grade, where the knowledge of English is considered necessary to high school and similar other institutions. The basic system has thus admitted the need for teaching English at the post-primary stage.

It will, therefore, be necessary to teach three languages at the higher secondary stage. Besides the languages, social studies and general science (including mathematics) will be compulsory for all. These are the core subjects, since they provide the foundation for further knowledge. The need for such integrated subjects is also felt, due to the enormous increase in the quantum of knowledge during recent years. In this connection it may be noted that the Secondary Education Commission contemplated a higher secondary course of 4 years, in the first two years of which these core subjects are to be taught. The AICSE has reduced the duration of the higher secondary course to three years. It has suggested that these core subjects should be compulsory for all pupils taking up the higher secondary course, and that they should be studied in all the three years.[1]

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[1] Government of India. *Draft Syllabus for Higher Secondary Schools.* op. cit., p. 3.

It is desirable that the study of the core subjects is spread over the first two years only and that the final year is confined to the study of special subjects. The instruction of the core and special subjects side by side often creates confusion in the minds of pupils, and the teaching of specialised subjects often rests on the foundation of the core curriculum. It may also be noted that a number of high schools may not be upgraded as higher secondary schools at all, and as such a large number of high school leavers will seek admission in Std. XI of the higher secondary school. Such transfers will present numerous difficulties to the teachers and the taught, if the core subjects are not finished in Std. XI.

In this connection it will be interesting to note that the position of English as a compulsory subject and Hindi as compulsory as well as an optional subject in various States of India.

TABLE 33

Teaching of Hindi and English, 1959-60 *

State	Hindi		English
	Compulsory	Optional	
1. Andhra ..	VI-XI	—	VI-XII
2. Assam ..	IV-X	—	IV-X
3. Bihar ..	I-XI	—	VI-XI
4. Gujarat ..	V-XI		VIII-XI
5. Jammu & Kasmir ..	—	VI-VIII	VI-XI
6. Kerala ..	VI-XI	—	V-XI
7 M.P. (Madhya Pradesh)	I-XI	—	VI-XI
8. Madras ..	—	I-VI	I-VI (Forms)
9. Maharashtra ..	V-XI	—	V-XI
10. Mysore (East while) ..	VIII-X	VI-VII	I-VI (Forms)
11. Orissa ..	VI-IX	X and XI	VI-XI
12. Punjab:			
Hindi Region ..	I-VIII	IX and X	VI-X
Punjab Region ..	IV-VIII	—	VI-X
13. Rajasthan ..	III-XI	—	VI-XI
14. U.P. (Uttar Pradesh) ..	VI-XII	—	IX-XII
15. West Bengal ..	V-VI	VII-XI	V-XI

* *Education in India*, 1959-60. Vol. I, pp. 101-05.

(3) Conclusion. — Thus every higher secondary pupil will study three languages and the core subjects. Besides these,

he will offer (i) a craft and (ii) three subjects from one of the specialised groups of Section D as suggested by the Secondary Education Commission. A craft is a very valuable medium for the development of the emotional side of the human mind. The special subjects should be selected with reference to the pupil's future needs as well as his tastes and aptitude. In addition to the subjects enumerated above, physical education will be compulsory for all.

The following facts should, however, be borne in mind while fixing the details of the course:

1. The mother-tongue should be the medium of instruction;
2. There should be the integration of subject matter as far as possible;
3. The courses should cater to the needs of the locality as well as to the aptitudes of students; and
4. There should be adequate provision for educational and vocational guidance to pupils.

It may be noted that the suggested curricula, both for high and higher secondary schools, should be of two types: (a) Preparatory and (b) Terminal.

SPECIAL SCHOOLS. — Since the publication of the Secondary Education Commission's Report, the Union Education Ministry regards upgrading schools as an essential feature of the reorganization plan. Its phased programme has two important features: (a) upgrading the existing high schools to the higher secondary level, and (b) establishing multipurpose schools with diversified courses having a vocational bias.

The development of higher secondary and multipurpose schools during recent years is given in Table 34.

TABLE 34*

Higher Secondary and Multipurpose Schools, 1955-56 to 1965-66

Year	Higher Sec. Schools	Multipurpose Schools	Secondary Schools
1955-56	503	255	10,838
1956-57	503	575	11,805
1957-58	2,308	830	12,639
1958-59	3,171	1,135	14,326
1959-60	3,763	—	15,703
1960-61	3,121	2,115	16,600
1961-62	3,992	2,245	17,670
1962-63	4,045	2,431	18,414
1965-66	6,390	2,446	21,800

* Government of India. *Programmes of Educational Development, 1961-66.* (Unpublished). p. 25.

Higher Secondary School. — It may be stated that Gujarat, Maharashtra (some parts) and U.P. have not accepted the higher secondary pattern. It may be noted that in Maharashtra, the Vidarbha and Marathwada areas which were formerly parts of M.P. and Hyderabad State have higher secondary schools. Uttar Pradesh has four year secondary course instead of three and, therefore, the intermediate colleges (giving four years' instruction) can be treated as higher secondary schools.

The higher secondary pattern has raised controversies, and there are two schools of thought on the subject. While one school is in favour of the new pattern, the second school feels that the suggested pattern is not practicable. There are a number of insurmountable difficulties in the implementation of the programme. There is dearth of staff, lack of accommodation, and scarcity of equipment. Even the financial resources are not adequate enough to cope with the sudden expansion of secondary education during recent years. According to the estimates of the Government of India, the cost involved in the upgrading of a high school into a higher secondary school will include a non-recurring expenditure of Rs. 10,000. The non-recurring expenditure will cover additional accommodation, equipment and extension of library and laboratory facilities. The recurring expenditure will chiefly meet the salary bill of four additional teachers needed for the purpose.

At the same time, there is a feeling that the eleven-year higher secondary course has led to a deterioration in standard and that the duration of the secondary course should be of twelve years. .The Conference of State Education Ministers, Vice-Chancellors and other eminent educationists held in New Delhi on November 10-12, 1963 observed, "Having surveyed the state of secondary education in the country, recognising the need for improving its quality by prescribing a higher standard, by using better text-books and providing for more qualified and better trained teachers, recognising further that there must be equivalence of standard while permitting room for flexibility and experiment in the pattern of education the conference expresses its agreement on the following points:

1. That a 12-year course of secondary education is the goal towards which the country must work, even though considerations of finance and manpower may not make it possible to implement such a scheme in all States in the immediate future;

2. That the standard to be achieved at the end of secondary education in the country should for the present be raised so as to be equivalent at least to the Intermediate examination of the former 4-year colleges;

3. That the age of entry into the universities and comparable institutions should generally be 17 and in no case less than 16 + ;

4. That the duration of the first degree course in arts and science should be 3 years throughout the country and special assistance from the Centre should be given wherever this involves the addition of one year.[1]

Thus this Conference has once again upheld the recommendations of the Radhakrishnan Commission, which had suggested that the present two-year course might be utilised for this preparation of the secondary school pupil for university modes of study, to be followed up by a three-year degree course, and a further two years for post-graduate.

Multipurpose School. — The multipurpose high school provides instruction in at least three *or* four of the alternative courses as suggested by the Secondary Education Commission. The following are the main arguments in favour of such an institution:

1. It contributes to the furtherance of social unity, the development of a closely knit community feeling, the reduction in class distinctions and the development of a parity of esteem among students and later men and women in various walks of life.
2. It is a suitable type of sorting house for directing pupils to their appropriate groups, since the transfer of children from one type of course to another in the light of a fuller knowledge of their aptitudes is easier.
3. It can make possible the development of the abilities of children within a framework of community life.
4. It can overcome the inevitable tendency of teachers, parents and children to look down upon the school (and pupils who attend it) which admits those who are denied admission in other schools.

The organisation of the multipurpose school is, however, presenting a number of problems. Firstly, the majority of teachers and managements are not clear about the details of these courses, since they are new. The AICSE and the Education Departments of some States have, therefore, drafted detailed syllabi for the different courses. Along with these, they should also supply full particulars regarding the nature of equipment, their cost and the sources from which they can be purchased. Secondly, a number of multipurpose schools have been started without looking to the actual needs of the locality, where they have been established. In fact, there is an urgent need for a very careful survey of the country and only such schools as can be properly developed into multipurpose institutions should be utilised for the purpose. It may be further noted that a multipurpose school should conduct at least three alternative courses and as such it should have an approximate enrolment of about 400 pupils in high school classes (Stds. IX-XI). Without this student enrolment, it will be very difficult to arrange suitable programmes properly and economically. Thirdly, it is very difficult to get teachers trained in practical subjects like technology, commerce, agriculture, fine arts and home science. Moreover, the provision of vocational courses is rather expensive and the private bodies are experiencing difficulties in establishing such schools. In this connection, it may be pointed out that our Education Departments seldom try to find out practical solutions of such vexed problems and insist on expensive laboratories, large workshops and extensive tracts of lands, and so on. In fact, much of the practical work and workshop practice of these institutions can be arranged in industrial or commercial concerns. Such a scheme will reduce expenditure and make institutions more realistic.

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[1] Indian Ministry of Education. *No. F. 10-1/64-U.4, dated January 23,* 1964.

Unipurpose School. — But this does not mean that the establishment of the multipurpose high school should be the general rule, and that a separate vocational or academic high school should have no place in a system of education. In England, there is a strong feeling against the comprehensive (multipurpose) high school. The following are some of the arguments against the comprehensive school:

> 1. There has been insufficient experimentation to demonstrate the desirability of the comprehensive secondary school...
>
> 2. A better standard can be maintained through the unipurpose school...
>
> 3. The comprehensive school does not promote social unity, because social unity is not something that comes from mere social contiguity; it is in essence something spiritual and does not require that all pupils should be herded into the same school.
>
> 4. It will not have the relatively simple clear-cut aims of a specialised school. In the American comprehensive school, the aims of the various groups become confused and so does the programme.
>
> 5. It would create transfer difficulties for children moving to an area which is organised differently.
>
> 6. It cannot succeed because it will not be possible to secure enough heads who are wise enough to administer and provide leadership in them.[1]

Thus there is a bitter controversy regarding the multipurpose schools in England. Most authorities in that country plan two or three types of special purpose secondary schools. Some are developing bilateral schools such as grammar-technical and modern-technical. A few authorities—not more than ten out of the one hundred and forty-six—are building some comprehensive schools. Thus we should establish multipurpose schools very cautiously in our country too.

Agricultural and Rural Schools. — Concentrated attention is, however, needed for agricultural education, since agriculture is the main occupation of Indians. But during the British rule, no occupation of the country suffered more than agriculture. The productivity of land has diminished, orthodox methods of cultivation are still being followed, villages are being abandoned, and there is a pull towards towns where fortunes are to be made. Thus agricultural education has a very important part to play in our educational reconstruction.

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[1] T. L. Reller. "The Comprehensive Secondary School Controversy in England", *Educational Administration and Supervision*, October, 1955.

During 1960-61, the total number of secondary schools located in rural areas was 49,465 (40,500 middle and 8,965 high/higher secondary).[1] But instruction in these institutions is chained in to urban requirements. So far as the junior stage is concerned, the existing middle schools may be converted into senior basic institutions with agriculture or gardening as their basic craft. Even at the senior high school stage, the details of the courses for urban and rural areas ought to be different. The programme of village schools should be attuned to rural requirements, and a rural craft should be chosen as a compulsory subject for all students. But since the aim of instruction at the early stages is to provide a broad-based education, excessive rural bias may be avoided. The campus activities, if arranged properly, can also bring the students into direct contact with actual life situations.

At the same time, it is equally shocking to find that there are as few as 102 agricultural high schools in the country though 70 per cent. of the Indian population live on agriculture. In fact, India needs a chain-work of agricultural high schools. The study of agriculture in these schools should, however, be closely integrated with two other allied subjects, viz., horticulture and animal husbandry. Problems of farming should be studied where they arise—on the students' own farms and on other farms of the community. This will make education more

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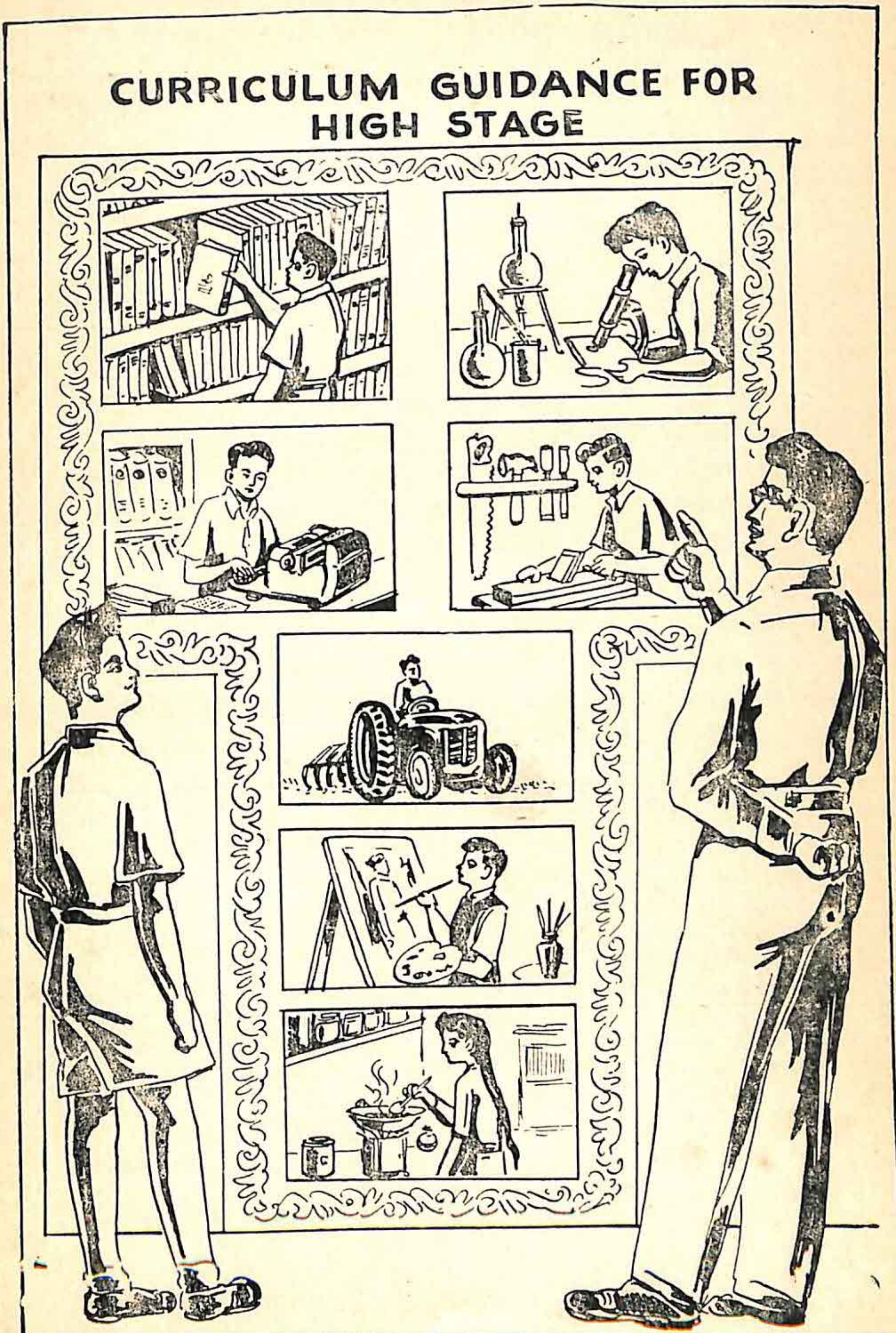
[1] *Education in the States*, 1960-61. p. 7.

ILLUSTRATION 5


CURRICULUM GUIDANCE FOR HIGH STAGE

realistic and convincing. This is an integral part of agriculture programme schools in the U.S.A. and is producing effective results. It will also be desirable to introduce suitable cottage industries in agricultural schools. This will enable students in their adult life to utilise their lesiure profitably in the off-season.

GUIDANCE. — The provision of diversified courses of instruction imposes on teachers and school administrators the additional responsibility of giving proper guidance to pupils in their choice of courses and careers. Every boy or girl now needs guidance in the selection of proper subjects in Class VIII. He or she will have also to be guided in the proper choice of a career after leaving school—be it an occupation or the selection of a college. Besides this, there is the problem of the gifted and the problem children. It is no wonder, therefore, that the Secondary Education Commission had recommended that "The services of trained guidance officers and career masters should be made available gradually and in an increasing measure to all educational institutions."[1]

According to the estimates of the Ministry of Education, the country will need 500 whole-time counsellors and 1,500 career-masters for manning the multi-purpose schools during the third plan period. A number of teachers colleges and State guidance bureaux have now started suitable courses for training counsellors and career-masters. But their output is too meagre to meet the country's needs.

ADMINISTRATION: *Need for Coordination.* — It has already been discussed that education is the responsibility of several ministers and departments, and that there is a good deal of wastage of money and efforts.[1] For overcoming this difficulty, the Secondary Education Commission has suggested:

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[1] *Secondary Education Commission's Report.* p. 143.

> 1. A Committee should be constituted both at the Centre and in each State consisting of the ministers concerned with various grades and types of education in order to discuss how best the resources of the departments should be pooled together for the furtherance of education of all types.
>
> 2. There should be a Co-ordinating Committee consisting of the departmental heads...to consider methods of improvement and expansion in all fields of education [2]

It is unnecessary to point out that unless different government agencies pool their resources and adopt a uniform policy in regard to educational schemes, education cannot develop smoothly. The need for establishing the coordinating bodies, as suggested by the Commission, is thus urgent.

The Seminar on Educational Administration, held at Srinagar from the 21st June to the 26th June, 1956, made similar recommendations. It suggested:

> 1. ...that an officer of the Finance Department of the status of a Deputy Secretary should be attached to the State Education Department. His duty will be to scrutinize and pass the Departmental proposals within the limits of the powers that may be delegated to him.
>
> 2...that an Inter-Departmental Committee consisting of the Administrative Department, the Finance Department and the Planning Department should be set up which can consider and scrutinize the departmental budget proposals and ensure their being finalised expeditiously...
>
> 3...that it is necessary that the Educational Directorate should also initiate a careful examination of the office procedures and techniques in order to bring about

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[1] *Supra*, p. 130.

[2] *Secondary Education Commission's Report*. p. 215.

quicker movement of files and ensure decisions being taken more expeditiously at all levels by personal discussions and staff meetings.[1]

High School Education Boards. — Except in a few States and areas, the universities have been relieved of the responsibility of intermediate and/or high school education. As many as fifteen boards have been entrusted with this responsibility.[2] It is high time that other States or regions adopted similar measures. But it is found that some of these boards are unwieldy in number and some of the interests represented on them are likely to hamper efficiency or harmony. The Secondary Education Commission, therefore, recommands that "if secondary education is to progress on right lines, the Board must be a compact body mainly composed of experts, whose functions will be limited to the formulation of broad policies."[3]

In spite of the establishment of such boards, the duality of control still persists in some areas, where the Education Board prescribes the courses of study and text-books for the matriculation (high school leaving class) but the Education Department controls the curricula of the lower forms. Hence there is a lack of continuity and consistency in policy. In the field of secondary education, there is the need for one single authority, entrusted with full power of prescribing courses and text-books, and of defining an examination policy. The High School Education Board should be entrusted with this responsibility. But it is not expected to function as an executive body, which is the province of the Director of Education.

Inspection. — It is repeatedly pointed out that inspection of schools is perfunctory, and it is mainly due to the absence of an adequate number of well-qualified and experienced inspectors and inspectresses, and due to waste and ineffectiveness in the system of education which is in large part a result of that inadequacy. In this connection, the following recommendations of the Seminar of Educational Administration are noteworthy:

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[1] *Seminar Proceedings*. Srinagar, June, 1956.

[1] *Supra*, pp. 131-33.

[3] *Secondary Education Commission's Report*. p. 191.

> 1. Arrangements should be made to provide effective training for educational administrators by developing short as well as full-length courses for the purpose, organising in-service seminars, conferences, and workshops for educational officers, and by instituting suitable systems of apprenticeship under senior officers of the Department.
>
> 2. It is also necessary to increase the strength of the administrative staff wherever necessary.
>
> 3. Every State should have a director of training to be in charge of the entire programme at all levels, including professional training and the training of educational administration...A research unit should be developed as a part of the Post-graduate Training College in the States for educational research including research on matters relating to educational administration.[1]

The attitude of inspectors towards teachers and schools should also change. It should be realised that the purpose of inspection in an age of democracy is the improvement of instruction. This is a cooperative enterprise in which all the teachers participate and where the inspector as the educational leader acts as a stimulator, guide and consultant to teachers in their effort to improve instruction. Thus the inspector can no longer be a carping critic, but he should be a friend, philosopher, and guide of teachers. At the same time, the appraisal of schools should not be left entirely to school inspectors. Much can be done in this direction by private agencies, who can use 'Evaluative Criteria' for this purpose.[2]

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[1] *Seminar Proceedings*. Srinagar. June, 1956.

[2] S. N. Mukerji. *Secondary School Administration*. Baroda, Acharya Book Depot, 1963. Ch. XXV.

Management. — Table 29 shows the percentage of the distribution of high/higher secondary schools according to managements — Government (18·1), local bodies (11·6), private bodies (70·3). The Government policy is more or less governed by the policy initiated by the Hunter Commission which laid down: "Secondary schools...be hereafter established by the State preferably on the system of grant-in-aid." This is the official policy at present and the majority of State Governments either open vocational or girls' schools or establish schools in backward areas.

The schools, under the control of local bodies, are not on the whole efficient. The Secondary Education Commission remarks, "Though we do not wish to make any unfair generalisation about their efficiency, we have had enough evidence to show that there is considerable need for a toning-up of these institutions."[1] The International Team suggests the need for improving the machinery of educational administration at local level.[2] In fact, the local boards should have a small executive body for the management of schools.[3]

It may, however, be noted that under the present circumstances in the country the local bodies should confine their entire attention to universal schooling. The development of secondary education can be left to private managements.

In recent years, there is a considerable increase in the number of private schools too. The majority of them have been opened in moffussil towns and big villages, and thus secondary education has been brought within easy reach of the people. But several difficulties have arisen in the path of such an expansion of schools. Numerous inefficient schools have been started in the most haphazard manner. There are many ill-attended and uneconomic schools in close proximity to large schools. A number of schools have also come to exist so close to one another that cut-throat competition and mean tactics seem to be raging among them with a consequent decrease in efficiency. Many efficient middle schools have also been enlarged into inefficient high schools. Most of the private schools are impoverished, ill-equipped and under-staffed. The majority of teachers are ill-paid and ill-treated. Most of the schools do not pay enough attention to important ingredients of learning, viz., discipline, social life, proper sanitary conditions and a reasonable standard of class-work. In fact, some of the institutions have no right to exist, but they manage to get recognition by eluding the control of inspection. Commenting on the situation, the Secondary Education Commission remarks:

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[1] *Secondary Education Commission's Report*. p. 196.

[2] International Team. *Teachers and Curricula*. Delhi, Ford *Foundation*, 1954. p. 102. Hereafter cited as *Report of the International Team*.

[3] *Secondary Education Commission's Report*. p. 196.

> This laxity has unfortunately led to a state of affairs where schools are run more like commercial enterprises than as educational institutions...in many cases, private individuals or groups of individuals start schools without proper buildings, or equipment and having enrolled a number of students, create a situation where the Department has no alternative but to recognise them for the sake of students.[1]

But worse than private schools are the unrecognised schools. A recent survey conducted by the Central Institute of Education, Delhi, reveals that for every student appearing for higher secondary examination in Delhi, there are two who are prepared by private unrecognised schools for the Punjab Matriculation examination. A big unrecognised school is headed by a principal drawing a monthly salary of Rs. 1,200. Another unrecognised school has as many as 11 branches — six within a radius of a mile.[1] This state of affairs is deplorable. Can there be anything more shocking?

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[1] *Ibid.*, pp. 197-98.

FINANCE. — It may also be noted that the majority of schools are inefficient because of want of funds, and that they depend more or less on tuition fees from students. More than twenty-five per cent. of private schools do not receive government grants. In fact, improvement without adequate state aids is well-nigh impossible. This is all the more necessary because the managements of private bodies are faced today with the problem of introducing diversified curricula, and cultural and social activities in their schools. Some of the States have enforced revised scales of salary for teachers of private schools, and the managements are short of funds. Every State has its own grant-in-aid code, but the upper limit of the grant is seldom reached. Without adequate financial relief it will be impossible for our secondary schools to cope with the situation. A very well-defined financial policy is also needed. The following suggestions made by the International Team[2] and the Secondary Education Commission will prove useful:[3]

> 1. In matters connected with reorganisation and improvement of secondary education, there should be a close cooperation between the Centre and the States.
>
> 2. The Centre should also assume a certain amount of direct responsibility for the contemplated reorganisation of secondary education and give financial aid for the purpose.
>
> 3. All grant-in-aid by the Government of India to State Governments should be governed by well-defined rules, which result from joint discussion and agreement on the part of the representatives of the Government of India and the State Government.

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[1] *Times of India*, March 10, 1959.

[2] *Report of the International Team*. pp. 105-121.

[3] *Secondary Education Commission's Report*. p. 227.

4. General or "block" grants should be favoured rather than the continued extension of multiple specialized grants.

5. A cess called Industrial Education Cess be levied, the amount collected to be utilised for the furtherance of technical and vocational education at the secondary stage.

It is strange that while sufficient funds are not available for secondary education, some of the States like M.P. and Madras have made secondary education free. Unless education is compulsory at this stage, this policy cannot be approved. Children of poor families are no doubt to be treated sympathetically, but such pupils whose parents can very well afford to pay tuition fees should not be given free education. In this connection, Gujarat and Maharashtra States have given a lead to the country. Children of such guardians, whose income is less than Rs. 100/- p.m., are entitled to get free instruction irrespective of the stage where they might be receiving education.

WASTAGE. — A national survey was recently made on the problem of wastage in secondary education, and it revealed some startling facts. It was found that out of every hundred pupils who join high school in Standard VI, only 50 per cent reach Standard X, and 25 per cent pass a secondary school leaving examination. This wastage is bound to increase rather than decrease with the current quantitative expansion in secondary education and the conversion of high schools into higher secondary schools. In this connection, the following observations of a recent investigation carried out by the Indian Institute of Education, Bombay, on 'Wastage in Secondary Education', in the districts of Bombay, Thana, Kolaba and Ratnagiri are interesting:

1. Percentage of wastage is found to vary with the communities the pupils are drawn from. It is the highest

in the backward communities and declines progressively in the intermediate and the advanced communities.

2. A critical study of marks obtained in English and Mathematics for standards VIII to XI by a few pupils selected at random from those failed in the S.S.C. Examination of March 1963 has indicated that the seeds of this failure were sown already years ago.

3. Although a student who fails to pass the S.S.C. Examination is designated as a case of wastage it is found that even the little education that these students receive is of great use to them in after-life and helps to make a better use of opportunities in life.[1]

The above findings clearly show that the programme of secondary education is not suitable for children, home condition of poor children is not conducive to studies, and that a greater vigilance is needed at lower classes.

CORPORATE AND SOCIAL LIFE OF PUPILS.—It is also regrettable that our secondary schools with a few exceptions completely ignore the social and corporate life of their pupils. Outdoor games, physical exercises, recreational and extra-curricular activities, and medical examination of students are more or less neglected. Moral and religious instruction does not find a place in the school system, and even the best schools do not pay any attention to pupils' activities outside school hours. Thus an average high school is a mere factory for the mass production of matriculates. It fails to provide the child with proper tools for discovering and cultivating his personality. It is no wonder, therefore, that Sir P. C. Ray remarked:

> Are we making men of our youths? Are we after all giving them any more than the answers to a few hundred probable questions? Are we really striving to develop in them the power of thinking, self help and self-reliance?

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[1] National Council of Educational Research and Training. *Educational Studies and Investigations.* Delhi, Manager of Publication, 1962. p. 113.

The remark, however, unpalatable, is quite correct and appropriate. Secondary schools have a great responsibility, since they have to train such children as citizens of tomorrow. They have to develop the personality of the adolescents, who form the entire backbone of the nation. Our country will fail to rise to her full stature, unless the energy of the present young generation is directed into fruitful channels.

Some Measures For Reforming Secondary Education

INTRODUCTION. — We are today at a unique stage of secondary education. It is passing through a peaceful, legal and social revolution. But revolutions, whether peaceful or violent, bring in new problems as soon as they liquidate the old. The tremendous expansion in secondary education during recent years should take place gradually but unconsciously. This progress cannot be and should not be checked. We should realise that the progress of a nation depends on the educated citizens, and the more and the better are the people educated, the better it is for the nation. India cannot be an exception to this rule, and we want education to expand not only at the lower but even at the higher level.

Unfortunately, we were not prepared for this expansion. Our Government, Central as well as States, lacked in foresight and vision. They did not calculate that compulsory primary education would be necessarily accompanied by an enormous expansion of secondary education. No attempt was made to provide for the large number of school population that is eager to continue its education beyond the primary level. The secondary schools are overpacked, the classes are overcrowded, and the majority of institutions have adopted the shift system.

NEED FOR ADDITIONAL SCHOOLS. — Thus there is an urgent need not only for the expansion of the existing schools, but also for opening more schools to keep pace with the constantly increasing demand. The Educational Survey of India suggests that 47,992 middle schools would be needed in the country. These will serve a total of 7,48,048 habitations leaving 91,935 habitations without facilities for middle schools. In terms of percentage 89·05 of the total habitations would be served by middle schools and 10·94 would remain withouth such facilities.[1]

Regarding the total number of high schools, the Survey estimated that 13,487 schools will serve a total of 6,98,874 habitations leaving 1,41,159 habitations without such facilities. In terms of percentage, 83·2 of the total habitations would have high schools either in the habitation or near them and 16·8 would be left without such facilities.[2] It is now for the State Governments to establish schools according to the suggestions of the Survey.

In the country's present stage of development, the greatest emphasis should be placed on secondary education. At the moment, the situation is thoroughly anomalous. Less than 15 per cent of the population in the age-group 14 to 17 is enrolled in schools, while the corresponding percentage in the industrially advanced counties is not less than 90. Yet, the number of persons who go to college in this country is proportionately as high as in Britain and many other developed countries. Is it any wonder that the educational standard of the average college graduate here is only marginally higher than that of students who pass through higher secondary schools elsewhere?

ELIMINATION OF WASTAGE. — The sharp increase in school population also means that a much wider range of social and economic background as well as of scholastic aptitude is represented in secondary schools than ever before. This shows the need for reducing the overemphasis on an academic curriculum through the provision of diversified courses catering to the different aptitudes of pupils and fit them to various avenues of life suiting their ability, tastes and temperament. To meet the needs of such a diversity of school population, as many as 1,550 secondary schools have been converted into multipurpose schools. Pupils with aptitude for practical subjects should be diverted to such schools.

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[1] Ministry of Education. *A Brochure on Educational Survey of India*. op. cit. p. 30.

[2] *Ibid*. p. 32.

At the same time, steps will have to be taken for eliminating wastage. It is found that the majority of students drop out due to lack of intelligence, adverse economic conditions, and unfavourable conditions at home. It should be admitted that a large number of pupils do not have the intelligence to qualify for the high school examination, which demands an above average I.Q. Even given the best teachers, the best books, and the best environment, this fact cannot be altered. This is why the educational discussion in India also now centres round the question of selection in admissions to schools. It was as early as 1944 that the Sargent Report suggested that entry to high school should be on a selective basis; only those pupils should be admitted who show promise of taking full advantage of the education provided.[1] The large failure at the S.S.C. Examination shows that the suggestion has sufficient justification. In fact, we have come to a stage in the development of secondary education in our country when we will have to decide whether a high school is an institution for all the children of all the people, or whether it should admit selected students. From the view-point of psychology it is estimated that from a non-selective group of adolescent population only about 20 to 25 per cent have got the aptitudes and interests for the real academic type of education, and 75 to 80 per cent of the pupils have a practical bent of mind and are not much interested in highly academic studies. The English or German structure of secondary education is based on this finding. As long as, the payment of tuition fees was compulsory for every secondary child in our country, it was not possible to compel children to join alternative types of courses. Since independence, the position has changed. One of the conditions of recognition of secondary schools in almost all the States is that every institution should normally award freeships to ten to fifteen per cent of its student population. Gujarat and Maharashtra have taken a bolder step and provide for free education to all children of low income group irrespective of their age, and Madras has made secondary education free for all.

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[1] *Sargent Report*. p. 26.

A nation-wide selection examination consisting of psychological tests, cumulative records, teachers' estimates and standardized objective tests should be administered to all pupils at the delta class or at the age of fourteen. Those who pass the test should be permitted to appear for the higher secondary certificate examination. The others, and specially those receiving free education, should be preferably diverted to other types of secondary education provided in a variety of institutions like technical schools, trade schools and commercial schools.

Small tutorial classes should be started, in which the specific and psychological defects of potential 'drop-outs' are to be considered and corrected. These classes, conducted after school-hours, would do much to mitigate the private tuition scandal and the bazar sides racket that are undermining the morale of both pupils and teachers.

At the same time, a large number of our high schools will continue to be of the academic type and will admit the majority of 14-17 group children. Pupils also insist upon those subjects which would be useful to them for entering the institutions, irrespective of their fitness for them. In fact, every high school student considers himself to be a prospective college student, and the parents also insist upon offering subjects which would be helpful for college entrance. The result is that the majority of students in most of the schools offer the academic subjects, irrespective of their aptitudes and interests for the same. The result is that there is a variety of intellectual levels in our high schools, and consequently there is maladjustment.

One of the ways out of this difficulty would be to offer some of the academic subjects at two levels: the higher level and the lower level. This would result in the brighter pupils offering the higher courses and the average pupils offering the ordinary level courses. In this way, both the grades of pupils will get subjects fit for their levels of intelligence. In big high schools with a number of divisions of each class, 'homogeneous' grouping of pupils can be tried. It may be formed on the basis of some common interests, social maturity or some other similar basis and not mere ability. Steps should also be taken to split a big class into smaller units for certain subjects like English and mathematics, which the students find difficult to grasp and where oral work is necessary.

It is also true that a fair proportion of pupils cannot complete their secondary education due to financial reasons. But the situation has considerably improved due to liberal provision of freeships and scholarships for poor and deserving students. The schools should also try to secure part-time jobs for such pupils, so they can earn and learn side by side.

A large number of pupils find it difficult to attend to their books due to disturbing home conditions. A large number of Indian families live in one or two-rooms flats, and their children seldom find a congenial corner to apply themselves to studies. The school authorities can draw a suitable programme by which such children can study in some class-rooms of the school before and after school-hours. Similar arrangements can also be made in the public libraries.

LONGER SCHOOL TERMS. — At the same time, the secondary school curriculum has been considerably widened. Fifty years back, there used to be four main subjects in the matriculation syllabus — English, a classical language, mathematics and history. After 1916, three more subjects were added. These were the mother-tongue, geography and science. After 1948, Hindi was the eight subject that was added. There has also been an increase in quantum in different subjects. There are other subjects of non-academic character which are added to the high school curriculum, viz., craft, art and drawing, physical education and co-curricular activities.

The present-day modern life has become so confused, that a knowledge of variety of subjects has become necessary. It should not be thought that too many subjects are being taught in schools. They are a necessity. But within the limited time at their disposal, teachers find it difficult to devote sufficient time even to major subjects.

One of the solutions of this vexed problems is to increase the number of working days. The present school year consists of about 210 working days out of whch about 160 days are devoted to clear instructional work. The other days are spent in non-instructional activities. It will be desirable to increase the total instructional days to clear 200 days. Another way is to increase the total working hours from 28 to 35 per week. The educational world in India has realised this, and steps are being taken in the country to implement the suggestion.

SYLLABUS REFORMS. — Another desirable solution will be to recast the syllabi of different school subjects and to redraft them on scientific lines through proper integration of subjects and courses and thus to reduce the burden of subject-matter. This reform is necessary because the existing syllabi in a number of school subjects in the majority of States are haphazard and many times very slip-shod. Very often they are framed by different bodies, and lack the integration. The following principles are to be borne in mind in syllabus reform: (1) the objectives of each subject should be kept in the fore-front; (2) overlapping of courses should be avoided; (3) non-essential and unimportant items should be dropped; and (4) proper guidance should be given to the text-book writers.

IMPROVEMENT OF SCIENCE TEACHING. — We are living today in an age of science, and this calls for greater attention to the study of sciences, pure and applied, which is necessary not only for the increasing production but also to eradicate social obscurantims and encourage the emergence of the scientific outlook. It is, therefore, necessary to make a determined effort to expand and improve facilities for teaching science in the nation's secondary school. One of the main aims of the five-year plans is to increase facilities for science education at the secondary stage. At the end of the Second Plan, this has been extended in 11,500 out of 14,000 secondary schools. The number of secondary schools is expected to increase to 18,000 by the end of the Third Plan. The objective of the Plan is to introduce general science courses in all these schools by providing special assistance for laboratories and training of teachers. Besides the course in general science, science as an 'elective subject' will also be introduced in as many schools as possible. This requires a higher standard of teaching facilities which should be achieved in about 4,000 of the schools offering courses in general science. Apart from the provision of laboratories, the main difficulty in expanding science teaching is the lack of adequately qualified and trained teachers. In this connection, a number of suggestions have been recently offered by the All-India Council for Secondary Education. These include special training schemes for science teachers and laboratory assistants and steps to meet the shortage of science teachers. The Council has also recommended the preparation of standardised designs of science apparatus and arrangements for the distribution of equipment among educational institutions. The question of scientific instruments has been examined recently by a committee and it has been decided that with a view to providing the scientific instruments needed by schools and other institutions from production within the country, to the extent possible, firm orders should be placed for a period of years ahead on existing and potential manufacturers.[1] Our secondary schools should make an honest effort to take advantage of these new plans and opportunities.

NEED FOR TERMINAL COURSES. — In India, a large number of children leave their schools before the completion of their secondary education. It is thus necessary that several terminal stages should be provided in the educational ladder, so that the pupils who cannot benefit by further education or who are not inclined for it may branch off to vocational training or vocations. It is therefore desirable that the end of the 7th and 10th standards should be recognised as necessary terminal stages and suitable vocational training courses should be provided for those who leave the schools at these points. The country needs skilled craftsmen at all levels and trade schools and vocational schools are at least as important as the provision for higher academic education.

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[1] Government of India. *Third Five-Year Plan.* Planning Commission, 1960. p. 102.

It is also noticed that the one-year preparatory or pre-university course is a wastage, since it is found that the majority of students of this course require five to six months for adjusting themselves to the new situation. This results in wastage and lowering of standards. It is, therefore, desirable to introduce a two-year higher secondary or an undergraduate course after X standard. These may be attached to colleges or schools or may be independent units. These may provide (1) college preparatory courses leading to the degree classes; (2) pre- vocational courses; (3) vocational courses. This two-year unit will (1) bring the pattern of education to what was recommonded by the Sadler, Radhakrishnan and Mudaliar commissions; (2) raise the level of maturity and attainments of students in the universities; (3) provide a stage for the completion of education for those who do not need and may not want higher university education; and (4) be more realistic considering the needs of the expanding educational system of the country.

PROBLEMS OF NON-PROMOTION. — Another great headache is the non-promotion or the stagnation of students. Out of non-promotion arise most of the disorders of the classroom, most of the discouragement, the sullenness and resentment, the charges of partiality and unfairness, together with endless friction, complications, and perhaps official interference. There are several causes for the non-promotion of students, but the main reason is that we have not taken any step for adjusting the work of the individual pupil to suit his ability. The following are being tried with some measures of success in the U.S.A.: (1) dropping a subject and substituting a study period, (2) electing an additional subject, (3) dropping an advanced subject and putting double time on a week subject, (4) transferring a pupil to another school, (5) repeating a subject for better foundation and better study habits, even though it is an elective, (6) transferring a pupil to another teacher, (7) assigning pupils to a special period for individual assistance, and (8) introducing more adequate guidance procedures including study of home conditions. These experiments show how the school programme can be adjusted to suit the needs of individual pupils. But within the rigid steel-frame of our educational system, such adjustments are difficult. It is for teachers to find out the solution.

The introduction of class-records is a very desirable measure introduced during recent years. A number of States are assigning twenty per cent marks to class-records, while considering the annual results of secondary pupils. This is a step in right direction. But it has to be given a far more serious trial than is done now. For the successful execution of this experiment, there are undoubtedly some real difficulties in the way. This experiment postulates an extremely careful day-to-day record of every pupil. This, in its turn, demands a keen, vigilant and alert teacher. No school can boast of many such and even where they exist, the difficulty is of the number of pupils in every class. Such experiments require conscientious and painstaking teachers and very small classes. And in these days of education for all, smaller classes may not come at all. So a vicious circle is created.

But a neat, workable record of the boy's day-to-day work is perhaps the only antidote against this evil. Examination may stay as part of the assessment; but the centre of importance has to be shifted. This cannot be done overnight. But the goal must be clearly decided and steadily followed, in spite of the difficulties. The boy's work from day-to-day must be given the order or precedence. If this is done, he will immediately free himself from fetters and the school will open out before him a delightful avenue of self-discovery and self-development.

CONCLUSION

The problem before the country today is not merely that of providing secondary education — however unsatisfactory — for all, or an ever-increasing number of citizens. It is the provision of the right type of education which prizes courage and social sensitiveness above conformity and self-seeking.

In achieving these objectives and reconstructing secondary education for the purpose, we have a long way to go. The pressure of demand for more schools is difficult to resist but it does increase the complexity of the problem of qualitative improvement. But there is an increasing consciousness of the urgency of the problem and understanding of the lines along which a solution should be sought. As more resources become available, there is reason to hope that the problem will be adequately tackled.

All over the world, the XX Century has been characterized by a great expansion of secondary education. India cannot lag behind. The XX Century has also brought the realisation that elementary education is inadequate for the needs of man in his expanding environment.

CHAPTER SIX

UNIVERSITY EDUCATION

STATE INSTITUTE OF EDUCATION * BANIPUR

HIGHER EDUCATION IN PRE-BRITISH PERIOD

India has a long tradition of learning. Corresponding to the colleges of modern times, there were *gurukulas* or *ashrams* run by individual scholars in ancient times. The curriculum in these single-teacher institutions was fairly wide and embraced all fields of intellectual activity including such subjects as archery and principles of warfare. There also existed many *parishads* or assemblies of renowned scholars, where disputable points in connection with religion were discussed. Individual students also approached these institutions for the recognition of their merits. The earliest university was Takshashila, which attained great fame as a university by seventh century B.C.

During the Buddhist period, a number of *viharas* and *sangharams* or monasteries developed into a kind of educational centres. The universities of Purushapura (Peshawar), Takshashila (in West Punjab), Jagaddal, Vikramashila and Odantpuri (in Bengal), Nalanda (in Bihar), Jayendra Vihara (in Kashmir), Kanchi (in Madras), Vallabhi (in Saurashtra) and other centres were some of the famous places.

These institutions were richly endowed; they attracted students from far and near; many of the savants had an international reputation. The studies too were fairly comprehensive and included ritual and holy scriptures, grammar and astronomy, medicine, logic and the different systems of philosophy.

Most of these universities disappeared during the Muslim period. In the beginning of the nineteenth century A.D. a few *tols* and *pathasalas* (centres of Hindu advanced learning) existed. The Muslims also established their own institutions of higher learning, which were known as *madrasahs*.[1] These existed in cities like Delhi, Agra, Lucknow, Jaipur, Ajmer, Murshidabad and several other places. The curriculum included grammar, rhetoric, logic, law, history, philosophy, geometry and astronomy. The medium of instruction was generally Persian, but the study of Arabic was compulsory for Mahomedans.[2]

HIGHER EDUCATION IN MODERN PERIOD

The development of higher education during recent years can be conveniently divided into four main periods: (1) the age of colleges (from the early days of the British rule till 1857); (2) the era of parent universities (1857 to 1917); (3) the rise of new universities (1917-47); and (4) higher education in Free India.

THE AGE OF COLLEGES. — When the British occupied the country, higher education was more or less dislocated. A number of English and Oriental colleges — government and private — were established during the period. These institutions were quite different from the colleges of today. The majority of them grew out of schools teaching English and contained classes "in which the alphabet was taught under the same roof with classes reading Shakespeare, the Calculus, Smith's Wealth of Nations and the *Ramayana*."[3] Some of the most notable institutions were: Calcutta Madrasah; Banaras Sanskrit College; Hindu College, Calcutta; Scottish Churches' College, Calcutta; Serampore College; Christian College, Madras; Pachaiyappa's College, Madras; Agra College and similar other institutions. Amongst the professional colleges, the most important were: Calcutta Medical College, Bombay Medical College, and Roorkee Engineering College.

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[1] *Supra*, p. 3.

[2] Keay. *op. cit.* p. 11.

[3] *Hunter Commission's Report*. p. 18.

Attempts to establish a university in Calcutta in 1845 and 1852 failed. In Madras, there was an institution curiously styled as "Madras University." But it was in reality only a high school. In 1852, it developed into the present Madras Presidency College. An idea of colleges working in 1857 may be had from the following statistics.

TABLE 35

Colleges In 1857*

Province	Colleges of General Learning	Colleges of Medicine	Colleges of Engineering (Civil)
Bengal:			
Conducted by Government	7	1	—
,, by Missionaries	7	—	—
Bombay:			
Conducted by Government	2	1	—
,, by Missionaries	—	—	—
North Western Province:			
Conducted by Government	4	—	1
,, by Missionaries	—	—	—
Madras:			
Conducted by Government	1	1	—
,, by Missionaries	2	—	—
Total...	23	3	1

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* S. Nurullah, and J. P. Naik. *History of Education in India*. Bombay, Macmillan, 1951. p. 279.

THE ERA OF PARENT UNIVERSITIES. — On the recommendations of the Wood's Despatch (1854), universities were established in Calcutta, Bombay and Madras in 1857 on the lines of London University, which was then a purely examining and a non-resident body. The Punjab and Allahabad universities were incorporated on the lines of the old universities in 1882 and 1887 respectively.

The executive governmnet of each university was vested in the Syndicate consisting of the Vice-Chancellor and a small body of fellows. But it was an impotent body, since it came into existence not by any statue but by regulations framed by the Senate. So far as the Senate was concerend, it consisted of the Chancellor, the Vice-Chancellor, and fellows — some *ex-officio* and others nominated. It is interesting to note that neither the maximum number nor the tenure of office of the fellows was fixed and new fellows could be added at Government's sweet will. The teachers of affiliated colleges did not have adequate representation on the Senate. As the Calcutta University Commission says:

> But the teachers were present as it were, by accident, not by right; and many of the colleges, especially those in the moffussil, were never represented at all.[1]

The universities were housed in rented office buildings, and had no teaching functions. They were purely examining bodies and drew their candidates for different examinations from affiliated colleges and schools. The Acts of Incorporation also did not clearly define what was meant by "affiliation" and what was the exact relationship between the universities and their constituent colleges and recognised schools.

By 1901-02, there was a very rapid expansion of college education. As against 68 colleges in 1881-82, there were 179 affiliated colleges in 1901-02 — 138 in British India, 32 in Indian States and 9 in Ceylon.[2]

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[1] *Calcutta University Commission's Report,* Vol. I. p. 45.

[2] *Progress of Education in India,* 1897-98 to 1901-02, Vol. I. p. 57.

The first sight of this wonderful expansion thrilled one with joy, but it also revealed the drawbacks of the universities. They more or less came to a breaking point, since they could not bear the strain resulting from a rapid development of colleges and schools over which they had no control. The Senate, consisting of a majority of nominated members, was practically unsuited to the exacting and complicated work it was required to perform. It was also being realised that the universities were too narrow in their scope and that it was desirable for them to assume some teaching and research functions.

The next landmark in university education that attracts our attention is the appointment, during Lord Curzon's Viceroyalty, of the Indian University Commission in 1902. It was directed "to enquire into the condition and prospects of the Universities established in British India." The recommendations of the Act were embodied in the Indian Universities Act of 1904. The most important provisions of the Act were:

1. The functions of the universities were enlarged. They were empowered to appoint their own professors and lecturers, to undertake research, to hold and manage educational endowments, to equip and maintain their libraries, laboratories and museums, and to make regulations relating to the residence of students.
2. The size of the Senate was limited. It was prescribed that the number of fellows of a university should not be less than 50 and not more than 100, and that a fellow should hold his office for a period of five years instead of for life.
3. The number of elected fellows was fixed at 20 for the older universities and 15 for the other two.
4. Statutory recognition was given to the Syndicate with adequate representation of university teachers on them.
5. Conditions for affiliation to the university were clearly laid down and were intended to be rigorously observed.

6. Government was vested with powers to make additions and alterations in case the Senate failed to do so within a specific period.

7. The power to define the territorial jurisdiction of universities was vested in the Governor-General-in-Council.[1]

But the Act rejected the idea of setting up new universities at Aligarh, Banaras, Dacca, Patna, Rangoon and Nagpur, though there was a heavy local demand for them. It also could not conceive of universities other than the affiliating type.

Yet the Act brought about some desirable changes. It introduced some efficiency in university administration, because the Syndicate was given statutory recognition and the new Senate became more efficient and manageable than the previous ones. The universities also undertook some teaching work, and university libraries were created. Efficiency of recognised institutions increased as they were brought under stricter control.

Within ten years of Curzon's reforms, the educational position had to be reviewed again. The number of colleges kept increasing and the work of the existing universities became heavier. The demand for higher education was insistent and Lord Hardinge's Government surveyed the situation and issued a resolution in 1913. It urged that the area of jurisdiction of the existing affiliating universities be reduced so as to provide a separate university for each of the leading provinces in India; and that simultaneously new local, teaching and residential universities be created in each province in harmony with the best modern educational opinion. It announced that Government had already decided to establish a teaching and residential university at Dacca, and were prepared to sanction the establishment of similar universities at Aligarh, Banaras and other places. By the same resolution, the Government disclosed their intention to establish universities at Patna and Nagpur, and expressed their desire to see teaching facilities provided and developed, and corporate life encouraged at the existing universities so as to advance higher study and create an atmosphere conducive to social and moral as well as intellectual progress.

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[1] S. N. Mukerji. *History of Education in India. op. cit.* p. 189.

In pursuance of the policy as advocated above and also to meet with new developments, the following new universities sprang up: Banaras and Mysore in 1916, Patna in 1917, Hyderabad in 1918, and the S.N.D.T. Women's University in 1916. The establishment of these universities showed new lines of thought. The Banaras University is the first unitary and Central university; the Patna university is the first provincial university of an affiliating type; Mysore and Hyderabad universities were the first ones meant for their own (Native) States; and the S.N.D.T. Women's University is the first independent organisation for higher education of Indian womanhood. Moreover, there was a move for starting regional universities at Dacca, Poona and Ahmedabad. In 1916, the Calcutta University decided to create post-graduate departments, where direct teaching could be taken up under the auspices of the University.

THE RISE OF NEW UNIVERSITIES. — Thus towards the close of the preceding period, some new universities sprang up within the jurisdiction of the parent universities. The next landmark in Indian education is the appointment of the Calcutta University Commission. Its suggestions for the reorganisation of secondary education have already been examined. Its main recommendations regarding university education are as follows:

1. The creation of new universities and the organisation as far as possible of the existing universities, on a unitary, teaching and residential basis;

2. The institution of Honours Courses distinct from Pass Courses;

3. The appointment of a Director of Physical Education and a Board of Students' Welfare in each university;

4. The institution of university chairs or readerships in Indian languages;

5. The institution of technological courses and degrees suited to varying local needs; and

6. The holding of informal periodical conferences of the authorities of the different Indian universities for the coordination of their curricula and courses and the discussion of matters of common interest.

As a result of these recommendations, a number of new universities sprang up: Dacca and Rangoon in 1920; Aligarh and Lucknow in 1921; Delhi (1922); Nagpur (1923); Andhra (1926); Agra (1927); Annamalai (1929); Travancore (1937); Utkal (1943); Sagar (1946); Sind and Rajputana (1947).

With the rapid increase in the number of universities, the number of affiliated colleges as well as enrolment increased. This can be evident from the following table:

TABLE 36

College Education in British India, 1920-46*

	1921-22	1931-32	1946-47
Colleges	231	417	933
Enrolment	59,591	99,493	199,253

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* S. N. Mukerji. *History of Education in India*. p. 189.

HIGHER EDUCATION IN FREE INDIA.—Soon after the partitioning of the country, thirty-five new universities have been established. These are: Panjab in 1947; Gauhati, Poona, Roorkee, and Jammu and Kashmir in 1948; Baroda in 1949; Karnatak and Gujarat in 1950; Bihar in 1952; Sri Venkateswara in 1954; Jadavpur and Sardar Vallabhbhai Vidyapeeth at Anand in 1955; Indira Kala Sangeet Visvavidyalaya, Khairagarh in 1956; Kurukshetra University in 1956; Gorakhpur, Jabalpur and the Vikram University at Ujjain in 1957; Marathwada, Bangalore and Varnaseya Sanskrit Vishvavidyalaya, Varanasi in 1958; Bhagalpur, Burdwan, Kalyani and U. P. Agricultural University, Pantanagar, (Nainital District) in 1960; Jodhpur University, Kameshwara Singh Darbhanga Sanskrit University, (Darbhanga), North Bengal University, (Siliguri), Panjab Agricultural University, (Ludhiana), Panjabi University (Patiala), Rajasthan Agricultural University (Udaipur), Orissa University of Agriculture and Technology (Bhubaneshwar), and Shivaji University, (Kolhapur) in 1962. Statutory recognition has been given to the Visva-Bharati and S.N.D.T. University in 1951.

Apart from the above universities, there are the following five universities which are deemed to be universities under Section 3 of the UGC Act of 1956: Gurukula Kangri Visvavidyalaya, Haradwar; Indian Institute of Science, Bangalore; Indian Agricultural Research Institute, Indian School of International Studies and Jamia Millia Islamia, New Delhi. During 1962-63, the Commission further recommended to the Government of India that Kashi Vidyapeetha, Varanasi, and the Tata Inditute of Social Sciences, Bombay, and the Gujarat Vidyapeeth, Ahmedabad might also be brought under the pursual of section 3 of the UGC Act.

A commission with Dr. S. Radhakrishnan as the Chairman was appointed by Government of India in November, 1948 to survey the entire field of university education in the country and to suggest improvements. The commission submitted its report in 1949. Its recommendations will be discussed at at relevant places in this chapter later.

RURAL HIGHER EDUCATION. — On the recommendations of a Rural Higher Education Committee appointed in 1954, the Government of India established a National Council for Higher Education in Rural Areas in 1956 to advise the Government on all matters relating to the development of rural higher education. The Council has selected 13 institutions for development into rural institutes and these have started functioning at Sriniketan (W. Bengal), Gandhigram (Madras), Jamianagar (Delhi), Udaipur (Rajasthan), Birouli (Bihar), Bichpuri (U.P.), Sanosara (Gujarat), Coimbatore (Madras), Gargoti (Maharashtra), Amravati (Maharashtra), Raipura (Punjab), Wardha (Maharashtra) and Hanumanamathi (Mysore). The aim of these institutes is to encourage the development of a type of higher education that will be purposefully related to the needs of the rural areas. In these institutes several new types of courses have been initiated — a three-year diploma course in rural services, a two-year certificate course in agricultural sciences, a three-year certificate course in civil and rural engineering, a one-year sanitary inspectors' course and a one-year preparatory course to initiate matriculates into the three-year diploma course in technical fields.

SOME CHARACHERISTICS OF PRESENT UNIVERSITY EDUCATION

It will now be desirable to study some special aspects of Indian university education. These are: (1) classification of colleges, (2) types of universities, (3) university administration and (4) some administrative bodies.

CLASSIFICATION OF COLLEGES. — During 1959-60 there were 1,893 colleges in India; 988 arts and science colleges, 725 professional colleges, and 180 special education colleges (for music, dancing, fine arts, oriental studies, social sciences and domestic science). The classification of these colleges according to managements is given below:

TABLE 37

Number of Colleges by Managements, 1959-60*

Management	Arts & Science Colleges	Colleges for Professional Education	Colleges for Special Education	Number	Percentage
Government	222	359	45	626	33·1
Local Boards	3	3	2	8	0·4
Private Bodies:					
Aided	635	271	118	1,024	54·1
Unaided	128	92	15	235	12·4
Total	988	725	180	1,893	100·0

* *Education in India*, 1959-60, Vol. I. p. 153.

It will be seen from the above that (1) two out of three colleges were managed by private bodies, (2) about half the professional colleges were under government control and (3) the share of local boards in the administration of institutions for higher learning was insignificant.

TYPES OF UNIVERSITIES: *Introduction.* — There are at present 55 universities in the Republic of India, operating under Acts passed by the Central or State legislatures. For historical or other reasons, four of these universities, viz., Delhi, Aligarh, Banaras and Visva-Bharati, are incorporated under Acts of the central legislature. They are also financed by the Central Government. They are, therefore, known as the Central Universities. The other "State Universities" are under the jurisdiction of the newly constituted States. The distributions of universities, with their enrolment is given in Table 38.

TABLE 38*

University Enrolment And Population of India, 1961-62

State	Population (In millions)	Number of univer-sities	Average population per university (in millions)	Total university enrolment	University enrolment per million of popula-tion
1	2	3	4	5	6
Andhra	35·98	3	11·86	59,986	1,667
Assam ..	11·87	1	11·87	32,157	2,709
Bihar ..	46·45	6	9·29	103,946	2,238
Delhi ..	2·65	1	2·65	24,181	9,125
Gujarat ..	20·63	3	6.87	54,159	2,625
Jammu & Kashmir ..	3·56	1	3·56	7,962	2,237
Kerala ..	16·90	1	16·90	50,544	2,991
Madhya Pradesh	32·37	5	6·47	80,311	2,481
Madras ..	33·68	2	16·84	63,511	1,886
Maharashtra ..	39·55	5	9·88	95,439	2,413
Mysore ..	23·58	2	11·79	51,715	2,193
Orissa ..	17·54	2	17·54	16,442	937
Punjab ..	20·30	4	10·15	61,940	3,051
Rajasthan ..	20·15	3	20·15	33,587	1,667
Uttar Pradesh	73·74	9	8·19	108,197	1,467
West Bengal	34·92	7	6·98	166,375	4,764
	433·95	55	9·43	1,010,452	2,328
	Total	Total	Average	Total	Average

* Inter-University Board. *University News*. April-May, 1963. p. 13.

Thus the Indian Universities are either Central or State. They can also be classified according to their constitution into three categories — affiliating, unitary and federal.

The Affiliating University. — An 'affiliating' university recognises external colleges offering instruction in its courses of studies. A university of this type is diffused over a large area, and it keeps within its fold scattered colleges which are not big enough to constitute university centres. In this type of university each college is in itself an embryo university, except that considerable external control, especially over courses and standard of instruction, exists and is vested in the university to which the college is affiliated. In short, an "affiliating" university may be looked upon as a "university of federal colleges, each college being subordinate to and subject to the rules of the federation."[1]

The relations between a university and its affiliated colleges are more or less governed by the Indian Universities Act of 1904. The main provisions of the Act can be appreciated from the following statement of an official report:

> An Indian university affiliates and inspects colleges, prescribes courses of study for students, holds examinations, and confers degrees;....It affiliates colleges which are situated anywhere within its territorial limits....It does not manage these colleges, but it lays down conditions to which they must conform in order to obtain and retain affiliation, and it satisfies itself as to the observance of these conditions by inspection.[2]

Sections 21, 22 and 24 of the Act define in detail the points on which a college applying for affiliation must satisfy the Syndicate of the university. These may be summarised as relating to "(1) constitution and management, (2) staff, (3) buildings and hostels, (4) equipment, (5) numbers and qualifications of students, (6) finance, (7) libraries, (8) registers and (9) miscellaneous."[3]

Section 23 of the Act further lays down that "The Syndicate shall cause every such college to be inspected from time to time by one or more competent persons authorised by the Syndicate in this behalf."[4] Every affiliating university, while granting or continuing recognition to a college, is guided by the above provisions in general.

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[1] *Progress of Education in India*, 1927-32, Vol. I. p. 54.

[2] *Progress of Education in India*, 1902-1907, Vol. I. p. 13.

[3] *Ibid.* p. 29.

[4] *Indian Universities Act*, 1904, Section 23(2).

The Unitary University — A "unitary" university has been defined as "one usually localised in a single centre, in which the whole of the teaching is conducted by teachers appointed by or under the control of the university."[1] A university of this type carries on its work through its own departments or constituent colleges. It has full control over its administration, teachers and teaching.

The Federal University — The main characteristics of a university of this kind are: (1) The university and its constituent colleges should be situated in close proximity of each other; (2) each constituent college should be actively engaged in work of a university standard; (3) each constituent college should be prepared to forego some measure of its autonomy in order to share in and contribute to the type and government of the university as a whole, and (4) the actual teaching should as far as possible be provided by constituent colleges under the guidance of the university.[2] In short a "federal" university on its teaching side is an organic association of institutions, all actively engaged in university work and each foregoing some measure of its full autonomy in order to share and contribute to the life and government of the university as a whole.

UNIVERSITY ADMINISTRATION. — Each university in India is usually under the ultimate control of a large body consisting of academic and non-academic representatives called the Court, though the older appellation of Senate is still favoured by many universities. The deliberation of the purely educational questions of the university is entrusted to an Academic Council. The executive body in immediate charge of university affairs is called the Executive Council in the newer universities, while the older universities favour the expression, Syndicate. There are besides Boards of Studies, or Committees of Courses and Studies, or Departments of Studies, as they are called, for the consideration of details regarding particular subjects, and a Faculty for each group of subjects like arts, science, medicine, teaching, etc., to coordinate and harmonise the recommendations.

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[1] *Progress of Education in India*, 1927-32, Vol. I. p. 61.

[2] *Progress of Education in India*, 1932-37, Vol. I. p. 66.

The head of an Indian university is the chancellor. Generally the governor of the State where a university is situated is its *ex-officio* chancellor. Owing to the creation of new universities during recent years, some States have now more than one single university. Under such circumstances, some of the new universities in these States have been empowered to elect their chancellors.

Next to the chancellor is the vice-chancellor, who is the real executive head of an Indian university. In most of the older universities, the chancellor appoints the vice-chancellor. In the newer universities, he is elected from a panel submitted by the Syndicate to the Senate, subject to the approval of the chancellor. Originally, the vice-chancellorship was regarded as an honorary post to be occupied by an eminent person for about three years. There is a recent tendency to have a full-time and paid vice-chancellor.

SOME IMPORTANT ADMINISTRATIVE BODIES. — It is also necessary to discuss the working of some important administrative bodies, which are connected with secondary and university education. These are: High School or Secondary and Intermediate Boards, the Inter-University Board and the University Grants Commission.

High School or Secondary and Intermediate Boards. — It has already been pointed out that several High School or Secondary and Intermediate Boards were set up on the recommendations of the Calcutta University Commission.[1] These boards have full control over either high school or secondary and intermediate examinations in their respective areas.

Inter-University Board. — The Calcutta University Commission also suggested the need for setting up an agency for coordinating the work of different universities.[2] But the idea took a concrete shape in 1924, when in a conference of Indian universities at Simla it was decided to establish an Inter-University Board. Its main functions are:

1. to act as an inter-university organisation and bureau of information;
2. to facilitate the exchange of professors;
3. to serve as an authorised channel of communication and facilitate the co-ordination of university work;
4. to assist Indian universities to get recognition for their degrees and diplomas in other countries;
5. to appoint or recommend, where necessary, a common representative or representatives of India at Imperial or International Conferences on Higher Education; and
6. to try and effect a settlement in cases of disputes or differences of opinion between the different universities as regards recognition of examinations and degrees.

The Board holds its annual meetings and has summoned quinquennial conferences for discussing university problems. Each university deputes its representatives to such meetings and conferences, which provide ample opportunities for exchange of ideas. In short, the Board has acted as "a forum for the discussion of university problems" and has brought about a clear understanding among the universities. It also helps Indian universities in obtaining recognition of their degrees and diplomas in other universities.

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[1] Supra. pp. 131-34.

[2] *Calcutta University Commission's Report,* Vol. III. p. 317.

The University Grants Commission (UGC). — On the recommendations of the Sargent Report, a University Grants Committee was set up in 1945 by the Government of India. Originally, it consisted of four members and looked after the Central Universities. The constitution of the committee was amended and its scope was enlarged by the Department of Education Resolution No. F. 55-5/46-E I, dated the 27th July, 1946 and the Ministry of Education Resolution No. F. 6-4-47-UGC, dated the 16th December, 1947.

In the meanwhile, the University Education Commission (1948-49) recommended the institution of a University Grants Commission on the lines of the UGC in Great Britain to advise the Central Government on grants from public revenues to universities.[1]

The original committee was held in abeyance since 1950 pending consideration by the Government of India on the recommendations of the University Education Commission. In November, 1953, the Government set up the University Grants Commission with enlarged functions and powers. The functions of the Commission are:

1. To act as an expert body to advise the Central Government on problems connected with the coordination of facilities and the maintenance of standards in universities and to take such executive actions as may be necessary in that behalf;

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[1] *University Education Commission's Report*. p. 29.

2. to enquire into the financial needs of universities and to advise the Central Government on the allocation of funds for grants-in-aid to them;

3. to take all necessary executive action in the matter of deciding on the grants to be made to universities and in disbursing them out of funds placed at the disposal of the Commission;

4. to advise any authority, if such advice is asked for, on the establishment of a new university or on proposals connected with the expansion of the activities of any university;

5. to advise the Central Government or any university on any question which may be referred to the Commission by the Central Government or the university, as the case may be;

6. to advise the Central Government or a State Government in regard to the recognition of any degree conferred or granted by a university for the purpose of employment under the Central Government or the State Government or for any other purpose;

7. to advise universities on measures necessary for the reform and improvement of university education; and

8. to undertake such other duties and functions as may be prescribed or deemed necessary by the Government of India for advancing the cause of higher education in India or as may be incidental or conducive to the attainment of the above functions.[1]

A bill was passed by the Parliament in December 1955 to give the Commission a statutory status. It stipulates that the Commission should consist of nine members—not less than three university vice-chancellors, two representatives of the Central Government and four educationists of repute. In order to perform its functions under the Act, the Commission may enquire into the financial needs of universities, allocate and disburse grants to them out of the fund of the Commission created under Section 16 of the Act. It aims at safeguarding the autonomy of the universities and at making funds available for developing post-graduate teaching and research with due regard to priority needs. The Commission has the authority to make appropriate grants to different universities and to implement development schemes.

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[1] *Ministry of Education.* (UGC) *Resolution*, dated the 3rd Nov., 1953.

In this connection, it will be interesting to make a comparative study of the functions of the UGC with the British University Grants Committee. In the U.K. it was found necessary as far back as 1919 to set up a body "to enquire into the financial needs of university education in the United Kingdom and to advise the Government as to the application of any grants that may be made by Parliament to meet them." This Committee is a committee of the Treasury and advises the Chancellor of the Exchequer. Gradually the Committee's duties and powers have increased. A convention has developed by which the advice of the Committee is accepted without debate and the universities are exempted from detailed financial investigations by Parliament and the Public Accounts Committee. The University Grants Commission in India has the duty of advising Government on the funds to be made available from the Consolidated Fund of India for university education in India, and to allocate and disburse these funds in a manner best calculated to develop university education in the country in a co-ordinated manner. The intention is that the Indian UGC, like the British University Grants Committee, should be a fully free body whose activities are not subject to frequent and detailed scrutiny by Goverment. There are, however, certain differences between the two bodies, arising out of the differences in the administrative systems of the two countries. The University Grants Committee in the

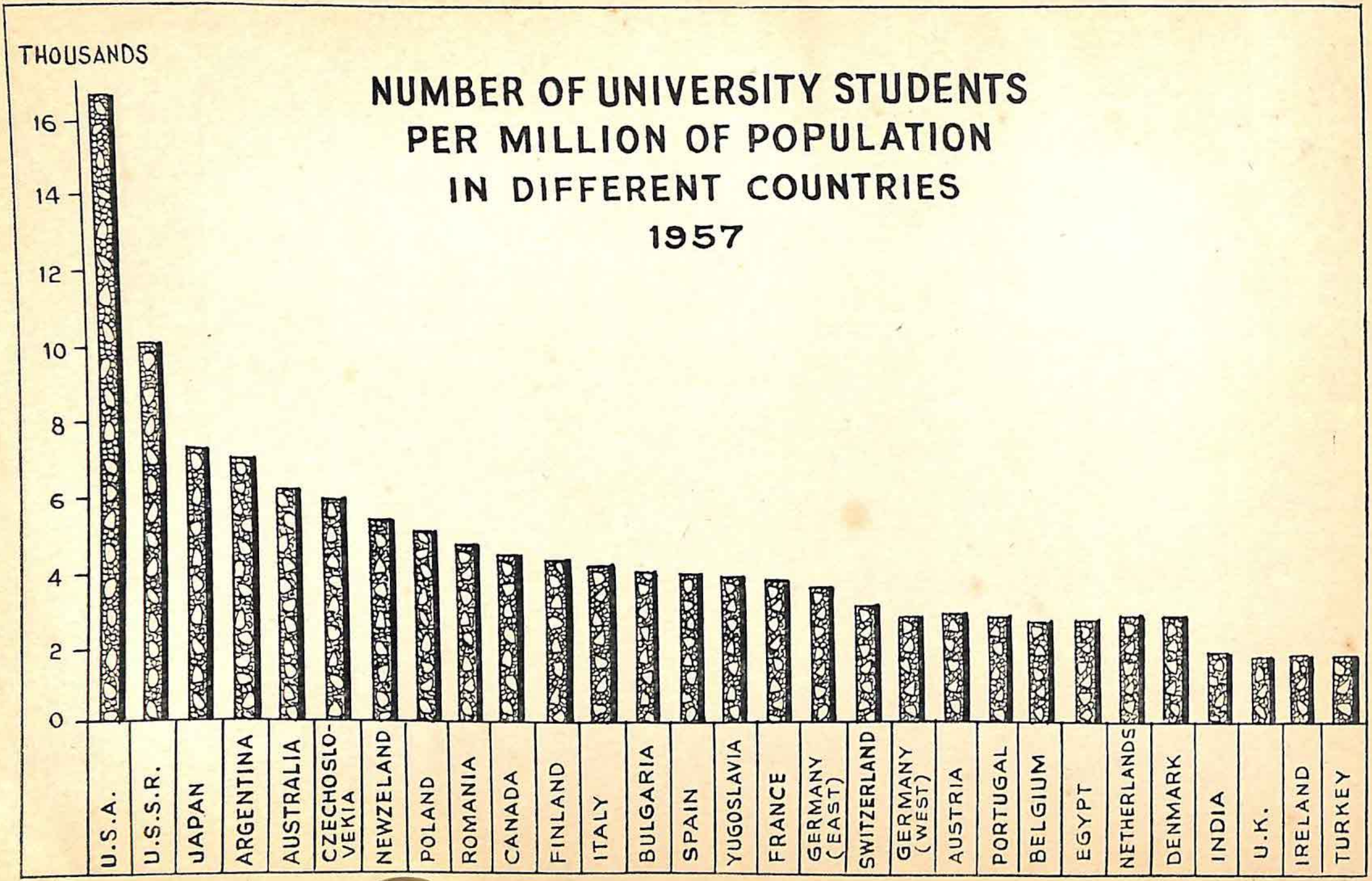
United Kingdom deals with the financial needs of all the universities in the same way. In India only four universities are the direct and complete responsibility of the University Grants Commission. The other universities, having been created by State legislatures, are only partially dependent on the University Grant Commission for funds. They receive financial assistance from their respective State Governments also. Any assistance that the University Grants Commission may give to these universities from funds placed at its disposal by the Government of India has, therefore, to be in the main for special developmental purposes, and to supplement the grants from the State Governments. It has been found in practice that this raises various problems of relationship between the University Grants Commission, the universities and the State Governments concerned. If the present constitutional set-up remains unaltered it will be necessary for certain conventions to be established by agreement between the State Governments and the Central Government and between the universities and the University Grants Commission, by which it will be possible to deal expeditiously with the developmental needs alike of Central and State universities and to ensure that plans are not held up owing to delay in securing agreement among the parties concerned.

SOME PROBLEMS

In this section, the following administrative problems have been discussed: (1) New universities, (2) Government and University Education under the Constitution, (3) Finance, (4) Private colleges and (5) Student Life.

NEW UNIVERSITIES. — The number of universities in India today is 55 and the number of institutions 'deemed to be universities' under the UGC Acts is five. In this connection a question arises: 'Do we need more universities?'

ILLUSTRATION 6



We have today in the country one person receiving higher education in every forty of the corresponding age-group. The figure for the U.K. is about one in twelve, and for the U.S.A. one in three. This clearly shows the need for expanding university education in this country.

The UGC appointed a committee in September 1961 to examine the question of establishment of new universities, and to suggest the broad outlines of a plan for the next few years. The committee has submitted an interim report which has been accepted by the Commission. It is recommended that, wherever resources and circumstances make it possible, it would be advisable to adopt a 'federal type' of organization for a university. A federal/unitary university provides greater possibilities, scope and incentives for improving the quality of higher education, specially at the post-graduate and research levels. This is our most pressing need. In an affiliating university post-graduate work is generally spread over a number of colleges, and under such an arrangement it is often difficult and time-consuming to raise standards or to introduce any substantial reform in courses of study and examinations. Not unoften it tends towards mediocrity rather than the pursuit of excellence. On the other hand, in a federal or unitary type of university post-graduate education in any particular subject is essentially organised as *one unit*, and the best staff available in the university as well as colleges can be made available for the teaching of that subject. In such a university, improvement of courses and standards and examination reforms are relatively easier, and receive greater attention and encouragement than in an affiliating type of university. The committee recommended the establishment of federal universities at Indore and Jodhpur, and an affiliating university at Kolhapur. It also recommended (as a long term programme) the establishment of such universities at Bangalore, Hyderabad, Madras and Poona. The committee felt that it would be of real value to have at least one federal type of university in every State. It may be noted that in the meanwhile, universities have been established at Jodhpur, Kolhapur and Bangalore.

We should, however, realise that there is a limit of size beyond which the unitary type fails to retain the advantages which it is expected to possess, viz., the advantages of a coherent corporate life. This is possible as long as the pupil enrolment of a university does not exceed 10,000. For example, Oxford and Cambridge with some 9,000 students each have by common consent reached saturation point. London University with its present roll of 20,000 is against further increase in its strength, if its present high reputation as a teaching institution is to be maintained. Thus the main burden of the expansion in England will have to be borne by the Central Universities, usually referred to as Redbrick. Their strength is also increasing. But it is doubtful whether any of them would care to go far beyond the 10,000 mark. It is expected that each of the new universities contemplated by the UGC in India will have a strength of 10,000 pupils very soon. The balance of places will thus have to be supplied by still more universities and it is possible to think of several places that might afford a suitable solution.

India needs new types of universities as well. We should not cling fast to a regimental uniformity and standardisation. There is enough room for developing single faculty universities, specialising in one particular branch of learning. Universities of this nature can be established in future at Jamshedpur for Mining and Metallurgy, at Sevagram (Wardha) for basic education, at Kanpur and Ahmedabad for textiles, and so on.

There is already a move in that direction. Khairagarh Mahavidyalaya and Roorkee University are such examples. Quite recently a few agricultural universities on the model of

United States land-grant colleges have been established. For example, the U.P. Agricultural University was started in 1960 with two constituent colleges, the College of Agriculture and the College of Veterinary Medicine and a School of Basic Sciences and Humanities. In July 1962, the College of Agricultural Engineering and Technology was added. The colleges and the school are situated on the same campus and offer courses leading to Bachelor of Science in Agriculture and Animal Husbandry, Bachelor of Science in Agricultural Engineering and Bachelor of Veterinary Science degrees. The School of Basic Sciences and Humanities provides foundation courses for students in the three colleges.

But there is a need for proper planning while starting new universities. Since independence, thirty-five new universities have been established in the country. For a few the ground was no doubt well-prepared. The rest, however, have not been a natural and logical development which would be justified by local needs and facilities. Indeed, quite a few have been brought into being in order to satisfy regional patriotism or to invest the institution with a dignity in name and law which does not belong to it in terms of eduactional achievement. It was only recently that Shri C. D. Deshmukh, an ex-chairman of the UGC, warned the authorities against embarking upon "unplanned parenthood" of universities. Before a university can be brought into being, there ought to be a widespread network of schools, colleges and research institutions which can provide it sustenance not merely by sending up students and sparing teachers but by creating a proper climate of educational and academic effort. This is absolutely essential if the university is not to degenerate — as many of the new ones theraten to — into administrative offices which examine students periodically for a fee and dole out degrees.

GOVERNMENT AND UNIVERSITY EDUCATION: *University Education under the Constitution.* — Universities find mention in the Indian Constitution in the lists of subjects contained in the Seventh Schedule to the Constitution by which power is distributed between the Union and the States.

List II, that is the State List, contains the following entry:

> 11. Education including universities subject to the provisions of entries 63, 6, 65 and 66 of List I and entry 25 of List III.

List I, that is the Union List, contains the following entries:

> 63. The institutions known at the commencement of this Constitution as the Banaras Hindu University, the Aligarh Muslim University and the Delhi University, and any other institution declared by Parliament by Law to be an institution of national importance.
>
> 66. Coordination and determination of standards in institutions for higher education or research and scientific and technical institutions.

Thus we find that universities, excepting those of Aligarh, Banaras and Delhi, have been made a State subject. In 1951, the Visva-Bharati has also been declared by the Parliament to be an institution of national importance. Thus the Union Government has the responsibility for four Central Universities and for coordination and determination of standards. The Article 282 of the Constitution enables the Union Government to give financial grants to the States for any public purpose which, of course, includes university education.

Among the framers of our Constitution, there were two main views. One was in favour of States being made fully responsible for university education. Some members of the Constituent Assembly held that the State Governments are the best judges to develop universities within their jurisdiction to suit local needs. They resented central interference and felt that the Centre was assuming too much responsibility which it could not discharge fully.

The other view was that university education should be made a wholly Central subject, and that in the field of education the power of State Governments should be limited upto the level of secondary education. It was felt that the general problem of university education should be the same, that there was an urgent need for a proper cöordination amongst the various universities, and that large funds are necessary for the expansion of university education. It was felt that it was possible to achieve these ends by the Central Government alone.

The University Education Commission did not favour the Centre taking over university education entirely for two main reasons. It saw the danger of Central control producing a stereotyped uniformity. Secondly, it was against creating "an awkward hiatus at a critical stage in the educational system if the Centre became solely responsible for university education while basic and secondary education were a provincial responsibility."[1] The Commission, however, laid down the limits to which Central control should extend. The Centre's concern, it suggested, should not go beyond finance, coordination of facilities in special subjects, adoption of national policies, ensuring minimum standards of efficient administration and liaison between universities and national research laboratories and scientific surveys. Since the Commission submitted its report, one of its major recommendations has been implemented and the universities are receiving aid through the University Grants Commission. With this body of experts at the Centre, it should be possible to avoid friction between universities and the Central Government.

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[1] *University Education Commission's Report*. pp. 404–05.

Fifteen years have passed since the operation of the Constitution, and the position may be reviewed. The Union Government through the UGC makes substantial grants to the State universities, but many of the schemes could not be implemented as many of the States are not in a position to allot enough funds for the development of higher education. In some cases, the States have expressed their inability to provide matching grants as they already have to spend a good deal on elementary and secondary education. It must be admitted that while lack of funds is hampering the progress of a number of State universities, the Central Universities are decidedly in a better position so far as the finances are concerned.

The experience of State universities has not been happy. A good number of them are universities on paper, without adequate staff and the minimum facilities. At the same time, the Union Government is not aiming at uniformity. This can be evident from the fact that each of the four Central Universities have their own distinctive features. The recent experiences of the State universities have not been happy, and some of them have fallen prey to the tactics of irresponsible politicians. There is an urgent need for amending the Constitution which will make University education at least a Concurrent subject if not a Central one. That alone, as Sri M. V. Pylee observes, "can facilitate the maintenance of minimum standards, eschew the narrow-minded local politics that contaminate the present-day university atmosphere, eliminate the creeping danger of intellectual isolationism, remove the frustration and helplessness that confront the thousands of sincere university teachers and safeguard the emotional and intellectual integration of the nation."[1]

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[1] M. V. Pylee. 'University Education — State, Concurrent or Central,' *The Journal of University Education*. March 1963. p. 226.

Under the Concurrent List, legislation by Parliament can lay down the general frame-work under which all universities should function and such Central legislation can be supplemented, wherever necessary, by State Legislature. It should be realised that there are many matters in which the evolution of a common pattern for universities is desirable. A fear is, however, held in many quarters that Central legislation may result in curbing local initiative and is an imposition of the will of the Centre on the States. It should be realised that all legislation under the Concurrent List is undertaken by the Central Government only after full consultation with the States; further, the Rajya Sabha consists of representatives of the States. Therefore, it is most unlikely that legislation definitely prejudicial to the States will be enacted by Parliament.

Universities and State Governments. — It has been pointed out that the Government of India directly administers four universities, viz., Aligarh, Banaras, Delhi and Visva-Bharati. Besides these Central Universities, all other universities are directly in charge of the States. But the Indian universities are not fully state controlled. In fact, they stand midway between the British and Continental universities. On the one hand they are independent of the State but they do not enjoy full freedom like British universities; on the other hand, government control over them is nothing like the all-pervading control of the State over the universities of France or Germany. The Indian universities are dependent on the States in two ways: (1) they are created by acts of State legislatures, and are thus dependent on the government for their constitution and powers; and (2) they receive annual financial aids for recurring and non-recurring expenses from the State — the total amount depending on the votes of state legislatures. But for these two restrictions, the Indian universities are more or less autonomous.

Universities and Autonomy. — Educationists in recent years have been concerned a great deal over the autonomy of universities. Governments, it has been felt, have developed a tendency to interfere with matters educational. There have been cases of political influence being used. It has already been pointed out that generally the governor of the State where a university is situated is its *ex-officio* chancellor and that the vice-chancellor is responsible to him. It is, however, noticed that besides the chancellor, the vice-chancellor has to receive instructions from the ministers of the government as well. On the eve of his retirement from the office of Vice-Chancellor, Bombay University, Dr. John Matthai pointed out that in connection with some university appointments he had to "switch from the Chancellor to the Ministers concerned and back again to the Chancellor." He further observed that the present system of making governors the chancellors of universities must end as it "provided a channel through which political influence is working its way into the universities."[1] This observation has a unique importance, and the academic world of this country is under a great debt to him.

A few months later, the Madras University and the State Government appear to be locked in a bitter struggle for control over collegiate and post-graduate education in the State. The controversy related to three issues: (1) the introduction of the three-year degree courses; (2) the introduction of the regional language as the medium of instruction in colleges, and (3) the publication of text-books by the Government.

The Government held that the three-year degree course envisages the abolition of the two-year intermediate course by adding one year to the degree course and one year to the secondary course as a "pre-university class." The University cannot, therefore, introduce the reform unilaterally, as secondary education comes within the purview of the Government. The University, on the other hand, argued that: (1) the three-year degree course has been introduced after a full, free and frank discussion by the Senate and the Academic Council; (2) the medium of instruction should not be changed hastily; and (3) the Government's intervention in the preparation and publication of text-books will inevitably lead to indoctrination and regimentation.

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[1] *Times of India*, February 28, 1957.

Ultimately in a bitter denunciation of governmental interference in university affairs, Dr. A. L. Mudaliar, the Vice-Chancellor, said:

> I do not want any autonomy as it is called. In fact, if the truth were to be told, the wearer knows where the shoe pinches. It is not autonomy in any sense at all. Directives are being received from the Ministry of Education in many spheres. Secretaries after secretaries tell us that we must introduce this and that. The communications we receive are such that, if we wanted to follow them all, we would place ourselves in the position of the man, the ass and the little child in Aesop's Fables.[1]

The most distressing incident during recent years was the promulgation of an ordinance by the President on June 14, 1958. It amended the Banaras Hindu University Act to provide that the Court of the University would be an advisory body to be constituted without any elections. The promulgation of the ordinance was followed by submission to Government of a report by a committee which inquired into the working of the university. Dr. A. L. Mudaliar was appointed the Chairman of the committee.

The cases cited above raise a fundamental question: Should the Government interfere with the autonomy of the universities? While it is agreed on all hands that university autonomy is basic to "democracy in education and to education for democracy", yet one feels that complete independence has not always led to the best results. As Shri C. D. Deshmukh has rightly remarked:

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[1] *Times of India*, November 20, 1957.

> Often enough autonomy has been responsible for mismanagement and maladministration. It is because of the absence of control that some universities were turned into hotbeds of internal politics and intrigues. Universities, of course, must not be allowed to become additional departments of Ministries of Education. But at the same time the Central and State Governments should have the powers to ensure the maintenance of certain standards and to see that the grants given to universities are properly utilized.

FINANCE: *Present Position.* — The contribution of various sources to the total expenditure on universities and colleges is given in the table below. The respective share of each source has been fluctuating slightly. Government contribution has slightly improved at the cost of fees and other sources.

TABLE 39*

Expenditure on Universities and Colleges by Sources, 1954-60

Year	Total Expenditure (Rs. in crores)	Percentage of expenditure met from			
		Government funds	Local Board funds	Fees	Other sources
1	2	3	4	5	6
1954-55	25·93	49·4	0·2	38·6	11·8
1955-56	28·38	47·6	0·3	39·4	12·7
1956-57	32·05	48·7	0·3	38·4	12·6
1957-58	36·32	51·0	0·3	38·1	10·6
1958-59	41·82	51·6	0·3	35·9	12·2
1959-60	47·70	51·4	0·6	34·9	13·1

* *Education in India, 1959-60, Vol. I.* p. 316.

It will be seen from the above that (1) above 50 per cent. of the expenditure came from Government funds, (2) the other major sources of income being fees, and (3) the contribution of local boards to university education is practically nil. It will now be necessary to examine how far the different sources of support can be utilised for a proper development of higher education in this country.

Government Grants. — It may be pointed out that while the finances of a university are largely drawn from State and Central grants, endowments, examination and tuition fees, the affiliated colleges do not generally receive any financial assistance from the university directly. The aided colleges receive grants mostly from State Governments. But the amount of grant varies from State to State, in some it amounts to 50 per cent. of the salaries of the sanctioned posts, but in some States very meagre grants are given.

One need hardly stress that the work of colleges and universities will be seriously hampered without adequate financial assistance from both the Central and the State Governments. The University Education Commission feels that grants should be given for following purposes: (1) Building grants for colleges and University Departments of Study; (2) Equipment grants; (3) Library grants: (4) Grants for halls of residence; (5) Salaries of professorial and other teaching staff, including provident fund, pensions, etc.; (6) Scholarships and fellowships; (7) Travelling scholarships and study leave; (8) Grants for encouragement of research and post-graduate work, and technical and professional education in particular.[1]

The State Governments generally give block grants, which are fixed on the principle of meeting the deficit after deducting the income from fees and other sources. These grants are further assessed on the actual expenditure of the past few years and that too on certain fixed items. This results in deficit budgets of colleges and universities. In fact, this assessment should take into account the normal and other development plans in the period for which the grant is made. It is also essential that the block grant should be fixed well in advance of the commencement of the period. This would enable universities to frame balanced budgets and allow sufficient freedom for development.

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[1] *University Education Commission's Report.* p. 449.

The Central Government gives grants to universities through the UGC. These are generally awarded for post-graduate instruction and research and other specific schemes on the understanding that the university or the State Government will bear one-third of the non-recurring and half of the recurring expenditure. In the latter case, the university and/or the State Government has to agree to bear the full cost after the Second Plan period. The university by itself cannot agree to this, unless the State Government gives an assurance to increase the block grant. So this principle acts as a deterrent when the State Government is not able to give a permanent commitment.

A sum of Rs. 19·27 crores was placed at the disposal of the UGC for the period of the Second Five-Year Plan. Table 40 shows the various grants paid on different items by the UGC during the Second Plan period.

TABLE 40*

Statement of Grants Paid by the UGC, 1956-57 to 1960-61
(Rupees in Crores)

Sr. No.	Item	Amount
1.	Development schemes (Humanities and Science)	12·290
2.	Revision of salaries of University and College teachers	1·170
3.	Three Year Degree Course	1·000
4.	Grants to affiliated and constituent colleges for the construction of Library, Laboratory buildings and Hostels etc.	1·760
5.	Cententary grants to universities and colleges	1·770
6.	Students' welfare schemes e.g., Hobby Workshops, Students' Aid Fund, Non-Resident Students' Centres etc.	0·510
7.	Fellowships and scholarships	0·130
8.	General Education and Reform of Examination system	0·020
9.	Miscellaneous	0·089
	Total:	19·279

* *Report of the University Grants Commission, 1960-61.* Appendix IX.

A sum of about Rs. 10·7 crores for the plan and non-plan purposes was placed at the disposal of the Commission by the Government of India during 1961-62 which was the first year of the Third Five-Year Plan.

Endowments. — The endowments (including private benefactors) of Indian universities cover only 3 per cent. of their entire expenditure. This is not very encouraging. In fact, their endowments have not "flown in the same generous manner in which they have either for the British universities or for the American universities."[1]

Every effort should be made to enlist the sympathies of non-official and charitable organisations for the cause of higher education, and substantial grants can be secured from individual donors. As yet, our colleges and universities have not organised fund-raising on scientific lines. In the U.S.A., large institutions often employ a full-time officer for this purpose. It may also be realised that it is not the charitable foundations and the rich who alone should be approached for donations. In the U.S.A., the contributions from the middle class are also encouraging. In 1960, higher education received about twenty million dollars in gifts from alumni and other individuals in that country. These people do not accumulate wealth enough for large gifts, but they are well off to contribute a part of their income each year.

PRIVATE COLLEGES. — A glance at Table 37 will show that two-thirds of colleges are maintained at present by private bodies. It is, therefore, necessary that the college governing bodies represent different elements. The following constitution for a college governing body consisting of 12 to 15 members, as suggested by University Education Commission, will prove useful. It should include:

1. Representatives of the body from which it draws endowments;
2. The principal and other representatives of the teaching staff;
3. Representative alumni of the college;
4. Representatives of the university;

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[1] *University Education Commission's Report*, p. 491.

5. Representatives of the government (if the college receives direct government grant); and

6. Representatives of enlightened public opinion to be coopted by others.[1]

It will also be necessary to set up non-judicial tribunals to adjudicate disputes between teachers and managing bodies. But unless there is a proper machinery for the enforcement of the decision, it will remain only a scrap of paper. The following case of Shri S. Datta once a professor and head of the Chemistry Department, Delhi University, is given below:

> I had several disputes with the University during 1949-51, all of which were referred to the statutory tribunal of the University under Section 45 of the University Act. The tribunal gave its decision on 17 June, 1953 in my favour. But the University would take no cognisance of it. There was therefore no alternative for me but to file the decision in court as an "award" (although correctly not an "award"), in an attempt to get it enforced....
>
> Litigation then ensued which after six years culminated in the Supreme Court's judgment that although the University tribunal was perfectly entitled to decide the dispute between me and the University, its decision in the present case could not be enforced by the court as an "award" owing to certain inherent limitations under which the courts have to act.

Such has been the experience even of the Supreme Court. This impossible situation exists because of loopholes in the law. It will be wrong to allow false notions about university or college autonomy to come in the way of the necessary reform of the law. It is not enough to assure the teachers that justice will be done with the setting up of adjudication tribunals. Steps must also be taken to ensure that their decisions are carried out without delay.

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[1] *Ibid.*, p. 491.

THE ROLE OF UNIVERSITY EDUCATION IN FREE INDIA

Introduction

The word university has been derived from the Latin word *universitas*, which means generally any community or corporation in its collective aspect. It had no reference to the range of studies. Gradually, it came to signify a community of teachers and pupils experimenting on the fellowship of learning in some agreed place. By the beginning of the fifteenth century A.D., a university was recognised to be a centre of learning, *studium generale*, made up of the *socii* or the "fellows" and the *discipuli*, the scholars, corresponding to our present-day professors and undergraduates.

Prof. Ernest Barker has defined a university as "an organised and degree giving institution, intended for the study and advancement of higher branches of learning, self-governing in its nature, and, to a greater or less extent national in scope."[1] Bruce Truscot defines a university as "a corporation or society which devotes itself to a search after knowledge for the sake of its intrinsic value."[2]

To quote Sir Grant Robertson, the essential elements in the functioning of the university are:

> First, university students must work in constant association with their fellow-students, of their own and other faculties, and in close personal contact with their teachers; they should start their work when young and be able to give their whole time to it; secondly, university studies may be of great value for professional or practical purposes, but are pursued not for the sake of information, but for the disciplined training of the mind and for the attainment of truth; thirdly, there must be a close connection between under-graduate and post-graduate work,

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[1] As quoted by Grant Robertson. *The British Universities*. London, Methuen, 1938. p. 2.

[2] B. Truscot. *Redbrick University*. London. Faber and Gwyer, 1943. p. 45.

> and alike, for teachers and taught the higher and the lower work must not be separated.[1]

According to the above definitions, the university has two main functions: (a) instruction, i.e., teaching of regular students and (b) research. During the nineteenth century, some of the universities had to assume another function, i.e., affiliation.

But today's university has a greater role to play than the *studium generale* of Bologna, Salamanca, Paris, Oxford or Prague. It is a national institution, hence it cannot keep itself aloof from the main currents of national life. It cannot become a recluse in its "ivory tower" of culture. It will have to bring its policies and programmes into line with social and national problems, and keep itself in contact with the needs of all sections of our population, well educated and illiterate, workmen and labourers, artisans and farmers. In short, it should provide suitable extension programmes too. Thus, a university in Free India will have four main functions: (1) instruction, (2) research, (3) affiliation and (4) extension.

Instruction

Instruction means regular teaching in a college or a university. In fact, it is more or less the chief function of the majority of our educational institutions today. Some of the main factors connected with college teaching are discussed below.

UNIVERSITY ENROLMENT. — The total enrolment in the universities is now a little over 1·3 million. The number was about 0·5 million in 1951, 0·8 million in 1956, and 1·11 million in 1962. This represents an average yearly increase of above 10 per cent or sixty thousand and is equivalent to a doubling period of about 10 years.

The following table shows the faculty — wise enrolment (including that under Intermediate Boards) for the years 1961-62 and 1962-63:

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[1] Grant Robertson. *op. cit.* p. 60.

TABLE 41*

Faculty-wise Student Enrolment

	1962-63 Enrolment	Percentage of total	1961-62 Enrolment	1961-62 Percentage of total	1962-63 Index with 1961-62 as base
Arts including Oriental Learning	5,43,841	42·7	5,11,940	44·3	106
Science	3,86,374	30·4	3,36,722	29·2	115
Commerce	1,29,951	10·2	1,25,142	10·8	104
Education	25,638	2·0	21,718	1·9	118
Engg. & Tech.	68,589	5·4	58,168	5·0	118
Medicine	49,546	3·9	39,569	3·4	125
Veterinary Science	5,524	0·4	5,214	0·5	106
Agriculture	31,427	2·5	24,794	2·1	127
Law	28,944	2·3	29,401	2·6	98
Others	2,832	0·2	2,712	0·2	104
TOTAL	12,72,666	100·0	11,55,380	100·0	110

* U.G.C. *Report for the Year 1962-63*. p. 27.

Of the total enrolment of 12·72 lakhs, about 2·23 lakhs were women. Women students thus constitute 17·6% of the total enrolment, the corresponding figure for the U.K. being about 24%. There has been an increase of 1·5 over the percentage for the last year which was 16·1 According to the figures projected for the Third Plan, the increase in the Arts, Science and Commerce alone will be of the order of 80,000 students per year. In terms of facilities, this means that it would be necessary to open 80 good size colleges every year or at least three colleges every fort-night.

It may, however be noted that the demand on colleges in metropolitan and urban areas increased at a much greater rate than in the *mofussil* areas. For instance, one of the colleges in Calcutta had as many as 16,378 students in 1958-59;

another six colleges amongst them enrolled more than 37,000 students. This led to the running of two or three shifts of students by these colleges. Morning colleges in Bombay and evening colleges in Delhi were started to accommodate the increased rush of students to colleges. Thus the growth in the university population in our cities during the last ten years or so has not been accompanied by a corresponding increase in space and material required. Many of our colleges have become nothing better than vast educational factories turning out graduates by hundreds. Still the rush for admissions is so great, that 'No Admission' boards are reported to have gone up in a number of colleges and the students wander despondently from one college to another. This is as depressing as "House Full" signs on theatres and cinemas or as a precocious student sagaciously anticipating future prospects put it, as bad as the 'No Vacancy' on government offices and business houses.

At the same time, it is remarked, "Our standards, whether in scholarship or in teaching, never very high or exacting, are now fast racing to the bottom"[1]

It has been estimated that, on an average, out of every 100 students who enter the first year class in college, only about 41 emerge as successful at the B.A. examination and of these, the third divisioners account for about 57 per cent. Table 42 gives the pass percentage of the various degree examinations from 1949-50 to 1958-59.

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[1] K. R. S. Iyengar. *A New Deal for Our Universities*. Bombay, Orient Longmans, 1951. p. 29.

TABLE 42*

Percentage of Passes in Various Degree Examinations 1949-50 to 1958-59

	Examinations								
Year	B.A.	B.A. (Hons.)	B.Sc.	B.Sc. (Hons.)	B.Com.	B.Sc. Agri.	B.E.	M.B., B.S.	B.V. Sc.
1	2	3	4	5	6	7	8	9	10
1949-50	50·8	77·2	44·4	64·7	50·3	88·8	71·4	45·9	71·1
1950-51	47·5	65·0	48·9	70·1	47·5	83·5	71·5	41·5	64·5
1951-52	51·7	67·8	45·9	71·3	50·7	73·8	67·0	45·7	56·4
1952-53	45·5	64·3	44·2	73·2	45·6	77·0	**	46·3	61·1
1953-54	44·9	71·6	46·1	70·1	45·5	80·3	74·8	49·4	60·8
1954-55	48·5	68·6	45·9	70·5	47·2	84·4	70·7	48·9	63·5
1955-56	45·6	71·0	47·1	69·0	46·1	78·6	72·3	49·3	63·1
1956-57	47·9	67·6	46·2	66·3	49·5	80·3	73·5	50·3	74·1
1957-58	47·8	67·3	48·6	65·7	46·0	82·2	72·5	50·7	70·4
1958-59	44·3	71·0	48·7	70·6	47·6	85·0	71·1	53·0	**

* K. G. Saiyidain and H. C. Gupta. *Access to Higher Education in India.* New Delhi, UNESCO, 1962. p. 29.

** Figures not available.

It will be seen that the pass percentage is markedly low in B.A. and B.Sc. as compared to the Honours courses in these faculties, to which only selected students are admitted. Also, the results are generally better for the professional than for the 'general' examinations. On the whole, however, more than 50 per cent of the students have to re-appear for the B.A., B.Sc. and B. Com. examinations.

Commenting on this wastage, the University Education Commission declares with categorical emphasis:

> A deplorable wastage of public funds goes on year after year but what is worse, there is an unconcerned complacency about this serious loss of public funds on the one hand, and waste of time, energy and funds of students and their parents, besides terrible frustration of their hopes and aspirations on the other.[1]

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[1] *University Education Commission's Report.* p. 86.

Thus a high rate of failure in examinations and low standards of achievement have marred the efficiency of Indian education system for many weary decades. It is repeatedly pointed out that numerous undeserving students are receiving university education and this results in a large number of failures at different university examinations, and it is suggested that the admission to colleges must be restricted to deserving students strictly on merit. As Shri C. D. Deshmukh, an ex-chairman of the UGC, declared in the Vice-Chancellors' Conference held on July 30, 1957 that the country would have to decide soon whether university education was meant for the 'elite' *or* for all the young people who could benefit from some kind of higher education after leaving school. Considering the supreme effort needed to develop the economy of the country he said, "I have no doubt myself that we shall have to restrict university education by and large to the number of university educated men and women that the country will be needing from time to time."[1] The CABE, in its twenty-sixth annual meeting, also recommended that admission to colleges should be made in accordance with the capacity and resources of the institutions and after looking into the merits of students. The Board further observed that access to higher education should be regulated by judging whether the student concerned was likely to benefit from higher education and whether he had talent for it.[2]

A policy of selective admission is also necessary in our country, since the Government has to think at every step while allocating resources to education.

On the basis of the trends during the last ten years, it can be estimated that by 1965, about 750,000 boys and girls will be passing the Matriculation and Higher Secondary or equivalent examinations every year. This would be the 'potential group' for admission to colleges with which our procedures and policies will have to reckon.

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[1] Ministry of Education. *Indian University Administration*. Delhi. Manager Publication Division. 1958, p. 16.

[2] *Times of India*. January 19, 1959.

The most urgent step in this connection is the adoption of a correct procedure for admission. It should be realised that there is no standard method of student selection in India and the practice varies from college to college, in one way or another. To determine the range of variation, Messrs Gupta and Saiyidain conducted a survey by circulating a specially designed questionnaire, which included a four-point criteria for, viz., admission, academic qualifications, age-limits, health requirements and domicile restrictions. The questionnaire was circulated to selected arts, science and commerce colleges and to all the colleges of agriculture, veterinary science, engineering, technology and medicine. Of the 1,135 colleges addressed, 321 or 28·28 per cent responded. The investigation shows:

1. *Academic qualifications:* It was found that all the colleges insist on the fulfilment of the minimum academic requirements, as prescribed by the university. However, the level of performance prescribed in terms of the marks secured in the qualifying examination, varies from faculty to faculty and from college to college. Broadly speaking, a mere pass, and in some cases a second division, is considered adequate for admission to Arts, Science and Commerce Colleges. A majority of the Engineering and Medical Colleges require 45 per cent or more of the total marks at the qualifying examination;

2. *Age.* — About one-fifth of the students in I year Arts and Science class are below 16 years of age, and the tendency to join at a younger age was on the increase;

3. *Domicile.* — The domicile restrictions do not present any particular problem in India; and

4. *Health Requirements.* — Out of 321 responding colleges, 261 prescribe no health criteria for the entrantts.[1]

The problem of selections raises two fundamental i sues: (1) What is to be done for the academically well-qualified candidates who are unable to find room in the existing institutions? (2) What should we do with students, who are considered unfit to receive higher education?

So far as the first problem is concerned, it will be partly necessary to open new colleges and universities and to increase the strength of existing institutions, and part of it in a better and more equitable allocation of students to different colleges which are at present unequally crowded. It should be realised that while there is overcrowding in some colleges and faculties, there are not sufficient students in certain institutions. Messrs Saiyidain and Gupta in their investigation found that in the Bombay University, taken as a whole, about 1,800 seats remained vacant in the Arts Faculty, 300 in the Science Faculty and 600 to 800 in the Commerce Faculty. Similarly, the Madras University reported that "there is, on the whole, no dearth of opportunities for students to pursue a university course of study," though it may happen that in some particular science subjects the number of applicants may be larger than the number of available seats. However, in the Faculties of Arts, Commerce and Science, as a whole, this was not reported to be the case.

At the same time, university education cannot be confined to the intellectual elite alone. It is noticed that a good deal of useful work in every country is carried out by persons who are considered second or third rate academically. Many of them shine out better later. There is also a strong case for the expansion of higher education if we are ever to catch up with the advanced nations of the world. Every advanced country provides some type of higher education for its 'rejected' students through technical institutions of various grades, evening colleges, correspondence courses, and apprenticeship schemes of various types.

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[1] Saiyidain and Gupta. *op. cit.* p. 53.

The same policy will have to be adopted in India too. Once the admission to colleges is made on the basis of selection, the Government will have to open other institutions for avenues of ordinary employment. This is all the more necessary, because India needs an increasing number of trained men in all spheres of national life. In some countries an approximate estimate is made about the number of persons required to fill up posts in which the higher qualification of a university degree is essential and the number of colleges and students is restricted accordingly. There are enough vocational institutions in which the other students are absorbed. The Government of India should also adopt a similar policy. Right in the beginning, it should conduct a survey of the distribution of students in industry and other professions and assess the future demand and supply of educated personnel at all levels. It should then open suitable institutions to meet the needs.

The Government of India has also included in the Third Five-Year Plan of educational development a scheme for assisting the universities to impart instruction through correspondence courses. The scheme aims at giving the benefits of university education to those who, for economic reasons, cannot pursue their educational career further in the normal manner. To begin with, correspondence courses are to be started in arts subjects only but at a later stage science subjects will also be included. During 1959-60, there were in all 84 evening colleges, of which 67 were affiliated to universities. The total enrolment in these colleges was 35,521 including 2,294 girls.[1]

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[1] *Education in India, 1959-60*. Vol. I, p. 168.

The University of Delhi was requested by the Government of India to take steps to introduce correspondence courses. The courses in arts subjects were to start from 1962-63. The UGC has also recommended to the colleges under the Delhi University that the teaching and non-teaching staff employed for conducting the evening classes may be confirmed in accordance with the university rules. The basis on which grants are to be paid to the colleges for running evening classes has been worked out in consultation with the colleges concerned. In the Third Five-Year Plan there is a scheme for extended use of evening classes.

QUALITY OF INSTRUCTION. — Another urgent problem facing university education is how to give proper instruction to students of the right calibre. This means that we should have right kind of teachers in sufficient numbers. Unfortunately, the increase in the enrolment of students has not been matched by a proportionate increase in the number of teachers. As a recent annual report of the U.G.C. observes:

> The rapid expansion of higher education that has already taken place has created a heavy strain on the staff and material resources of the universities. If increasing number of students continue to be admitted in our universities without corresponding expansion of facilities there is grave risk of the academic standards being impaired further.[1]

No doubt, there has been a considerable increase in the output of M.A.'s and M.Sc.'s during the last decade, but it has failed to keep pace with the increasing tempo of demand. A large number of our best post-graduate scholars do not join the teaching profession, and are attracted to industry and other avenues of public and private employment which offer better financial prospects. This has a very adverse effect on college instruction, since many of the colleges are not able to secure well qualified teachers. The results are obvious. As Dr. D. S. Kothari, the chairman of the UGC, rightly remarks, "There is much serious concern that in many places there is too much 'teaching' but relatively too little of good teaching and far too little of good research."[1]

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[1] UGC. *Report for the Year, 1961-62*. Delhi, 1963. p. 19.

The need to raise the emoluments of teachers to satisfactory levels is generally accepted and it was with a view to achieving this end that the University Grants Commission offered uniform scales of pay to teachers in private colleges throughout the country. These scales were sanctioned by the Commission only for a period of five years and even during that period an essential condition was that the Commission's contribution should be supplemented by a matching grant derived from local resources; the three parties to be responsible for the matching grant are the State Government, private management and the university concerned. Universities are themselves dependent for their finances on State Governments and, in the circumstances, the task of finding the necessary funds falls on the Governments and on managements. Owing to the unwillingness of certain Governments to make the necessary grant the scheme was not functioning in many areas in the country during the Second Plan and, where it worked, it was in operation only in those colleges in which the management agreed to find the necessary funds.

The private college teacher in a State has the right to demand the same emoluments as are made available by Government to teachers in their own colleges. Rigorous conditions of recruitment and of performance of duties may be prescribed and enforced by the University, the authority responsible for doing so, in consultation with the Government which will have to find a substantial share of the necessary funds. One of the most important considerations to determine emoluments is the cost of living in an area and, as governmental scales of pay are presumably fixed in relation to the cost of living, there appears to be little justification to withhold equal payment to teachers in private colleges.

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[1] D. S. Kothari. 'Some Aspects of University Education.' *op. cit.* p. 12.

For private colleges, the responsibility for maintaining reasonable standards of emoluments should be shared by the State Government and managements The grant sanctioned by the University Grants Commission should not be stopped at the end of the five-year period. A continuance of help from the Centre is eminently desirable; the conception of the burden being taken over by the State at the end of the Plan period and of some compensation towards this burden being provided by the award of the Finance Commission every five years may not suffice as a practical solution of the problem. Some Governments have sought to meet the situation by appropriate provisions incorporated in their Grant-in-Aid Codes. A grant by the Centre towards this particular item of salaries of private college teachers in the States is desirable.

Besides suggesting suitable scales of salary for attracting teachers, the University Education Commission has stressed the need for laying down definite rules for provident fund, leave and hours of work.[1] The method of recruitment also needs improvement, since it is seen that often a student of average merit becomes a college or university teacher immediately after obtaining a post-graduate degree. It is difficult for these raw youths to handle college classes. It is, therefore, suggested that the universities and colleges should have a number of research fellowships for attracting meritorious students to the profession. These fellowships should be available for two or more years, and the selected scholars should be engaged in their researches without being encumbered with teaching or other kinds of routine duties. After this period of apprenticeship, suitable persons should be appointed as college teachers.

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[1] *University Education Commission's Report.* p. 82.

At the same time, it will be necessary to initiate the young teacher to the methods of teaching and a pre-service training often proves helpful.[1] As Dr. K. C. K. E. Raja, an ex-Vice-Chancellor of the Kerala University observed, "The assumption that a man with a first or second class M.A. in his own subject is adequately equipped for teaching that subject seems hardly justified. He needs pre-service training. It should be so designed as to impart real knowledge of the meaning and purpose of life, mode of conduct and deportment and the method and technique of inspiring young scholars to lead a life of self-discipline."[2] But mere pre-service training will not do. It should be realised that a young teacher needs a great deal of guidance, supervision and consideration in view of the heavy work load he has to bear.

Every teacher should be further provided with a place to work and study. It is noticed that the majority of colleges generally have a common room and teachers have no individual rooms of their own. It may be possible to relax in such a common room, but no serious work can be done, whether it is personal study or attendance to some individual need of a student. As Dr. S. N. Bose points out:

> In almost all the universities you will find the young teacher desirous of doing work, crying for aid against the difficulties of space, the lack of materials for research and,

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[1] *Infra*, Ch. IX.

[2] Ministry of Education. 'The Changing University'—A Symposium, *Educational Quarterly*. December, 1962. p. 219.

above all, the absence of similar minds with whom he could discuss his problems.[1]

It will also be necessary to reduce the giant size of colleges to manageable proportion and to limit the strength of a class to a workable size in the interest of better education. The University Grants Commission has laid down that, in order to earn its financial assistance, the normal strength of a college should not exceed 1,000 except where the college has been designed and equipped for a larger number of students and has the requisite facilities for educating them satisfactorily. In all other cases, where the pressure of numbers has gone beyond the optimum size, the colleges must undertake a phased programme for the reduction of numbers.

It is also seen that due to the increase in the student world population, college instruction is more or less carried through a large number of lectures, delivered in most cases to classes of unmanageable size. Personal contact between the teacher and the taught is gradually disappearing. It will, therefore, be necessary to introduce effective tutorial system in this country. The University Education Commission (1948-49) and the Lok Sabha's Estimates Committee (1957-58) recommended that the introduction of tutorial system should be the goal, to be reached by stages as and when resources permit. But nothing has been done seriously in this direction.

COURSES AND CURRICULA: *Provision of Suitable Courses.* — The most urgent problem of our university education is the provision of a well-balanced course. It should be so organised as would allow every pupil to receive a proper training suited to his tastes and aptitude. It should give sufficient scope to every individual including "misfits" and "unfits" to develop their individuality to the fullest extent. The best solution of the problem is the reform of the university courses, which should be widened corresponding to the diversified courses prescribed for secondary schools. The curricula should include courses in arts, science, agriculture, commerce, technology, fine arts, home science, engineering and so on. Such a reorganisation will introduce many desirable reforms in our university education. Firstly, a college will no longer be a "wooden model turned out to a stereotyped pattern." It need not, however, teach all the subjects, but may specialise in certain branches of learning. Secondly, a college entrant can take up a course suited to his bent of mind. Thirdly, the system will provide proper environment to the so-called "misfits" and "unfits" to develop their personality. There are other advantages too: arts and science colleges will not be clogged with unsuitable material, professional and special colleges will secure better equipped students, the country will not feel the dearth of trained technicians, and the problem of unemployment will be partially solved.

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[1] Ministry of Education. *Indian University Administration*, op. cit. p. 97.

In this connection, it may be mentioned that the science courses are attracting the largest number of students since science has become the hall-mark of modern civilisation. It is therefore necessary to take sufficient care that the quality of education that the science students take does not deteriorate. To investigate whether factors such as rapid increase in the number of students, inadequate preparation of university entrants and difficulties with the medium of instruction have resulted in the deterioration of standards of education in India, the UGC has appointed a committee to undertake a thorough study of the standards prevailing generally in our universities. It may be appreciated that while some deterioration in standards of education and attainment is inevitable in any large scale expansion of higher education, it must be mentioned here that in our country in spite of an unprecedented rise in the university population, there are some departments which consistently maintain a high standard.

THE THREE-YEAR DEGREE COURSE. — The need for introducing the three-year degree course has already been discussed. This has become a pattern for the entire country with the exception of the University of Bombay and the State universities of the Uttar Pradesh. For impementing the scheme, the UGC has approved an expenditure of Rs. 22·55 crores in 31 universities, the Commission's share being Rs. 11·37 crores. The UGC's recent report mentions that "so far grants totalling Rs. 4·14 crores have been provided to the universities (Rs. 3·66 crores (NR) and Rs. 0·48 crores (R) according to this formula. Six hundred and ninety-two colleges affiliated to 30 universities have so far changed over to the three-year degree course. A sum of Rs. 1·17 crores was paid during the year under review."[1]

GENERAL EDUCATION. — It is also pointed out that our universities are at present sending out students without that balanced outlook and general cultural equipment which is the hallmark of a properly educated person. As Saiyidain says, "There is a certain narrow, unimaginative type of specialisation which results in the science students being complacently ignorant of art and poetry, and social and political problems, and arts students having no appreciation of how science and the scientific technique have transformed the world in which they are living".[2]

For correcting this type of over-specialisation, the University Education Commission has suggested the provision of a common core of education both at the intermediate and degree levels for every student whatever be his field — liberal or occupational.[1] This new education is designed to give those phases of non-specialised and non-vocational learning which should be the common experience of all educated men and women. It should give to the student the values, attitudes, knowledge and skills that will equip him to live rightly well in a free society. It should enable him to identify, interpret, select and build into his life those components of his cultural heritage that contribute rightly to the understanding and appreciation of the world in which he lives.[2]

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[1] Evaluation Committee. *Report of the Three-Year Degree Course*. Delhi, Ministry of Education, 1958. p. 12.

[2] K. G. Saiyidain. *Education, Culture and Social Order*. Bombay, Asia Publishing House, 1952. p. 163.

The value of general education in school and college curricula has been fully recognised by some of the best educationists throughout the world. A number of foreign countries, notably the U.S.A., are 'making experiments with the system. So far, general education (in the college curriculum) is being provided through following three methods:

1. By dividing the curriculum into some large groups and requiring one or more courses to be taken from each group;

2. By arranging introductory survey courses in the discipline not taken by the student for his specialised study; and

3. By entirely eliminating choice and requiring of all students a study of the principles, methods and significant facts of the natural sciences, the social sciences and the humanities.

But the devising of these new courses is not easy, and it will also be necessary to make a careful study of similar courses evolved elsewhere. While recommending the introduction of general education, the University Education Commission has suggested the need for group meetings of teachers, handling programmes in several fields, for discussing teaching methods and contents of courses.[1]

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[1] *University Education Commission's Report*. p. 138.

[2] President's Commission on Higher Education. *Higher Education for American Democracy. Vol. I*, New York, Harper, 1946. p. 49.

It is thus clear that General Education is not a cheap remedy and needs careful preparation and organisation of reading material by competent teachers.

In 1958, the UGC appointed a committee to consider the ways in which general education courses could be introduced in the universities and also to recommend the pattern of assistance that may be made available towards this scheme. The report of the Committee has been published and circulated to the universities for their comments. So far thirteen universities have introduced General Education in one form or another. The UGC has also received a grant of $ 1·75 lakhs from the Ford Foundation for the development of the programme of general education.

GUIDANCE AND COUNSELLING. — But the mere provision of diversified courses and general education will not improve the situation, unless every student gets proper guidance in selecting courses. For this, it will be necessary for every college or university to consider every student's educational background, his needs and interests, his plans on leaving the institution, and the offerings which can be and should be provided within the frame-work of the college curriculum. This establishes the need for adequate guidance, which should be a constant and active feature, beginning before a student enters and continuing even after he leaves the institution. Guidance should also be given on student's personal problems.

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[1] *University Education Commission's Report*. p. 137.

THE LANGUAGE PROBLEM. — The language situation in India is unique and it is of great importance that a satisfactory solution is found. The Indian Constitution enumerates in the VIII schedule fourteen languages spoken by Indians as their mother-tongue. Two of them (Urdu and Sanskrit) are spoken by the groups scattered over the country, while others are spoken in compact regions, which now form the States in the Indian Union.

The University Education Commission, 1948-49, recommended that Hindi or English should become the medium of instruction as early as possible. The Commission argued that:

> Both from the point of view of education and of general welfare of a democratic community, it is essential that their study should be through the instrumentality of their regional language. . . . Equipped with the requisite knowledge of the federal language, the provincial students will have no difficulty in joining institutions of all-India character, and the provincial scholars in undertaking to teach them.[1]

The CABE after careful deliberations accepted the recommendations of the Commission, and since 1951 the Government of India has been asking the universities and the State Governments to implement them. In consonance with the recommendations of the Commission, several universities have allowed the students to appear for examinations in Hindi or the regional languages, the total number of such universities being 27 in 1962. The percentage of students who appear for examinations in the regional languages, however, differs from faculty to faculty and from university to university. In general more students appear in the regional language in the Arts than in the Science course, and more at pre-university and inter level than at graduate level.

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[1] *University Education Commission's Report*. p. 323.

The National Integration Council, which recently deliberated upon the subject, reaffirmed the policy followed by Government and advised the universities to implement this policy in a more purposeful manner. The resolution states:

> In the Council's view, the change is justified not so much by cultural or political sentiments as on the very important academic consideration of facilitating grasp and understanding of the subject matter. Further, India's university men will be unable to make their maximum possible contribution to the advancement of learning generally, and science and technology in particular, unless there was a continuous means of communication in the shape of the regional languages between its masses, its artisans and technicians, and its university men. The development of the talent latent in the country will also, in the view of the Council, be retarded unless regional languages are employed as media of instruction at the university stage.

It seems that so far as the near future is concerned universities have to function largely on a bilingual basis instead of a monolingual basis, viz., the regional language and English. For post-graduate study and research, and to serve as a link for inter-communication between the universities, and also with the outside world, English is an obvious choice for us in the context of the times. On the other hand, to facilitate understanding of difficult subjects and basic concepts, and to bring together workers and thinkers which is an essential process for advancement of science and industry in the country, the use of regional languages becomes almost a necessity. It should also be appreciated that the introduction of regional language as medium of instruction is not misinterpreted to mean shutting out of English from university life and work. In fact, for successful completion of the first-degree course a student should possess an adequate command of English to be able to express himself with reasonable ease and facility, to understand lectures in that language, and to avail of literature in English (particularly scientific and technical). With this aim in view adequate stress should be laid on the study of English as a language right from the school stage.

It is also sensibly suggested by the Council that Hindi should become the inter-State and inter-university link and that scientific and technical terms should be common to all languages and should include the internationally accepted terms. This can happen only if Hindi is made a compulsory subject of study in all secondary schools and universities. There can be no justification now for the refusal of the Madras and West Bengal Governments to introduce Hindi as a compulsory subject in secondary schools. Their policy only delays the process of national integration.

If any university or college wishes to continue the use of English as a medium of instruction, it should be completely free to do so. Both the National Integration Council as well as the Emotional Integration Committee have recommended the use of English as an alternative or associate medium of instruction.

It should, however, be realised that some time must elapse before English is displaced as the medium of instruction. But this must not be made an excuse for delaying the change-over. Even as it is, the average professor is unable to express what little he knows in intelligible English and many a college student finds it difficult to grasp fully what he is taught in this language. With the continuous decline in the standard of attainment in English, it is in the interest of sound university education that the medium of instruction be changed as speedily as possible. The main challenge here is the preparation of adequate text-books and other books for supplementary reading and research. The vast amount of translation work needed for this can be organised only with large-scale subsidies from the State.

The recent Gujarat High Court's judgment to the effect that a university cannot prescribe a particular language as its sole medium of instruction has created an extraordinary situation both for the universities and State Legislatures. Among the elementary rights to which the universities can surely lay claim is that of stipulating what the teaching medium should be. Yet according to the High Court's judgment the denial of this right apparently confers on affiliated colleges the special privilege of selecting their linguistic medium and on students the extraordinary right to demand a particular language in which he should be taught and examined. The ruling appears to be that the medium of instruction in a university can be decided by the Parliament alone under entry 66 of the Union list of subjects which refers to the "co-ordination and determination of standards in institutions of higher education."[1]

EXAMINATION. — The next burning problem is the examination system, which has been influencing Indian education for more than a century. This is not very difficult to understand, since the performance at an examination makes or mars the career of a student. The defects of the system have been carefully analysed and pointed out by a number of educational committees and commissions. The Indian Universities Commission of 1902 remarked, "The greatest evil from which university education in India suffers is that teaching is subordinated to examination, and not examination to teaching", and in 1949 the University Education Commission observed, "If we are to suggest one single reform in university education, it should be that of examinations."[2]

At present, examinations in India are of essay type and are conducted by papers. These are supplemented by oral or practical tests for science and medical or technological subjects. Except for practical examinations, weightage is not given to class work. In this connection, the suggestions of the University Education Commission are commendable. It suggested:

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[1] *Times of India*. June 28, 1962.

[2] *University Education Commission's Report*. p. 328.

> 1. The Ministry of Education should undertake a thorough study of the scientific methods of educational testing and appraisal. . .
>
> 2. Each university should have a permanent full-time Board of Examiners, which should advise the university or college instructional staff concerning techniques in devising and constructing objective tests. . .
>
> 3. Credit should be given for classwork and one-third of the marks allotted to each subject be reserved for work done during the course of instruction. . .
>
> 4. It is not desirable that all work for the first degree (involving three years) be subjected to one examination at the end of the period. Sections of the course, which are more or less self-contained, can be made the subjects of periodical examinations and spread over the three years' duration.
>
> 5. In post-graduate courses, term papers can be required as a part of this course credit.[1]

The above suggestions are very helpful. In the final assessment of pupils due credit should be given to internal tests, tutorials and class records of pupils. Besides essay-type questions, objective tests should also be introduced in class tests as well as in university examinations.

The University Grants Commission Committee on examination reform submitted its report in 1962. The report has been circulated to the universities for their observations. The main recommendation of the Committee is with regard to some continuing assessment of the work of the students by the teachers concerned. The Committee says, "Teaching work should be done not only through lectures but through tutorials, seminars, etc. It will be desirable to hold periodical short tests on the work done in the tutorials and to maintain a record of the assessments made. This should be regularly evaluated. Each university may decide what wightage should be given to this." It is generally agreed that the number of examinations leading to a degree should be reduced. For example, it is not desirable to have a university examination at the end of each year of the three-year degree course.

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[1] *Ibid*. pp. 337-42.

STUDENT WELFARE. — Student welfare forms an integral part of educational development. It cannot be denied that the general academic atmosphere in a college or university is affected very significantly by the conditions in which students live and work. It is, however, seen that expenditure of college education is increasing day by day, and many poor or lower middle class parents have to withdraw their children from colleges, abruptly for want of funds. There are now several schemes for helping poor and deserving students. For example almost all the colleges and universities provide free places to poor and deserving students to the extent of 5 to 15 per cent of the total enrolment. The government and universities also award some open scholarships on the basis of results of university examinations. The Government of India has three schemes for higher studies: (1) Post-Matric Scholarships Scheme, (2) Research scholarships in Humanities, and (3) Schemes of scholarships for scheduled castes, scheduled tribes and backward classes.

The recent decision of the Government of India to launch the National Loan Scholarship Scheme with effect from July 1963 deserves to be commended. According to this Scheme, it would no longer be necessary for a brilliant and poor student to discontinue his studies. The State has now undertaken upon itself the obligation to educate such a student. That this scheme almost ensures equality of opportunity for the rich and the poor alike will be readily conceded. That this scheme will also act as an instrument for the discovery of talent which remains unexploited at present is something that needs to be underlined and commented upon. Another aspect of this scheme also deserves praise. Those who eventually join the teaching profession will not be required to pay back the loan that they had taken. Indeed in their case the loan would be written off. This step will inderectly help recruitment to the teaching profession.

It will also be necessary to pay special attention to some of the basic needs of college students. A large majority of them have inadequate facilities for home study. Many hardly ever find a place and time conducive to study and contemplation, free from petty worries and distractions, and undue demands for household duties. Often they have to travel long distances from their homes to the university, with all the attendant stress and loss of time involved. A large majority of our students come from homes in which there is no background or tradition of academic work of any kind. Some eighty per cent of our people have a family income of less than Rs. 100 per month. Apart from hostels, it is important to make adequate provision of 'day-students homes' where they may have facilities for quiet study, and also, if possible, 'subsidized meals'. The reading rooms in libraries also need considerable expansion. A library should be a house of 'perpetual temptation' to students and teachers.

The UGC has already taken steps in this direction, and has granted assistance to universities and colleges for a number of such schemes. These provide for the construction of non-resident student centres, establishment of student health centres and students aid funds.

FINANCIAL STRAIN ON STUDENTS. — The expenditure of college education is increasing day by day, and many poor or lower middle class parents have to withdraw their children from colleges abruptly for want of funds. In fact, we have not paid much attention to this problem so far. No doubt, at present, almost all the universities and colleges provide free places for poor and deserving students to the extent of 5 to 15 per cent. of the total enrolment. The government and universities also award some open scholarships on the basis of results of university examinations.

It is high time that every educational institution of the country buids up a loan and scholarships fund for students, and sets up a Placement Office on the lines of American colleges and universities for securing part-time jobs for needy students. At the same time, our educational pattern should be made more elastic. It should permit a section of adults and poor students to learn while they earn.

Research

It is a pity that scholarly research and keen reflection are insufficient in our universities. It should be realised that research is the main spring of university education; if it is neglected *raison d'etre* will disappear. The quality of education depends on research, and without quality we fall back. There is an urgent need for reforming and reorganising post-graduate teaching and research-work in our country.

In the first place, the majority of our universities and even some colleges are trying to set up post-graduate departments in every conceivable branch of learning. Neither they have adequate resources nor the man-power to develop these departments. Unfit students are often admitted, and this cannot be helped since certain departments want a sufficient number of students for justifying their existence. This is deplorable. A university should think thrice, before setting up a new department; and we cannot think of a new university complete without post-graduate departments.

It is also important that there is coordination between the development plans of different universities in the country so far as this aspect of education is concerned. Worthwhile progress can only be achieved through concentration and co-ordination of effort on an all-India basis. This can be achieved only through a cental agency. The establishment of the UGC has removed a long felt need of this country. A substantial part of the expenditure on advanced study and research is met at present by the UGC. It gives high priority to the developmental proposals received from the universities for the improvement of quality and number of teaching staff, purchase of books and scientific equipment, and provision and improvement of library and laboratory accommodation. During 1961-62 the UGC gave a grant of Rs. 187·14 to as many as 38 universities over these items.[1]

Post-graduate teaching and research also involves, or rather should involve, a certain degree of specialisation, the study of a subject in some depth. It presupposes a measure of intellectual training and, even more, some amount of sustained intellectual interest among its recipients. The teachers need to be thoroughly groomed in the basic discipline of their respective subjects and also, through their specialisations, be in a position to cover among them the various fields of special interest in which instruction is offered. It is essential that they have the necessary time and equipment to keep abreast of developments in their respective subjects and perhaps also undertake original investigations. These imply a properly adjusted work-load,—not merely in terms of hours of work but also in terms of the number of subjects to be taught,—and adequate library facilities.

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[1] UGC. *Report for the Year, 1961-62.* p. 7.

It should also be appreciated that the peculiar strength of a university lies in the fact that it combines discovery, teaching and research. As Dr. D. S. Kothari, the chairman of the UGC, remarked, "In a university teaching and research should not be conceived as competing activities, but as complementary and mutually supporting."[1] The experience of the German universities shows that research and teaching flourish best in combination, and they both wither in isolation. The best researchers are perhaps the best teachers. They can inspire their students, and give them a new vision. At the same their preparation for lecture-work is helpful in their research. Our senior professors should not, therefore, confine their attention to research only. They should realise that research flourishes on the foundation of teaching. They should further publish their research-work. In Harvard University, we are told, there is a slogan, 'Publish or perish.'

Post-graduate teaching and research should further aim at the highest international standard. Nothing less is or can be worthwhile. But it is rather difficult to achieve this standard. In this connection, we might start asking a few simple questions. What proportion of our post-graduate students has the prior intellectual training required for their chosen subject? How many of them have taken up post-graduate studies for the love of knowledge and not merely to get better jobs? How many of our universities have teachers adequately trained to cover the various specialised fields in which instruction is offered? How many of the universities have properly equipped libraries and laboratories which may enable one to study the subject of one's choice on a level remotely comparable to international standards?

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[1] D. S. Kothari. *Convocation Address.* Aligarh Muslim University, January 14, 1963. p. 9.

Realising the need for improving the quality at the post-graduate and research levels, the UGC has evolved a scheme of what are called Advanced Centres. According to this scheme, it is proposed to build up to a much higher level some university departments where good work is being done so that work of a more advanced kind could be carried out in them. In pursuance of this idea it is now proposed that the university departments where already work of high distinction is being carried on be aided in a relatively more generous way and facilities in terms of competent men and equipment provided, so that it may be possible eventually to achieve the highest possible standards and to attract scholars of the highest ability to come and work at these centres.

The selection of these centres is being made by a committee appointed for this purpose and is based primarily on a consideration of work going on in the departments concerned. These centres will be integral parts of the universities but would have a measure of autonomy to enable them to work efficiently and effectively. They would function on an all-India basis and wherever practicable would work in close collaboration with other institutions, such as the National Laboratories interested in the same area of work. Each centre would have a team of teachers and research workers of outstanding ability who while participating in the regular teaching work in the university would have sufficient time and facilities for carrying on sustained research work. It is expected that a substantial proportion of the team of outstanding workers at these centres will come on deputation or a visiting arrangement from universities, both in and outside India. It is our hope that such centres, if successfully conducted, will not only raise standards of teaching and reserach, but also be a means of encouraging communication and movement among senior teachers and scholars throughout the country.

Affiliation

The functions of an affiliated university and its relation to its affiliated colleges have already been discussed.[1] It may be noted that out of 51 universities in the country 35 are affiliating universities; about 86 per cent of the total number of university students in the country are enrolled in affiliated colleges. The progress of higher education in this country, therefore, depends on the improvement of the affiliated colleges. Realising this fact, the UGC is attaching great importance to the development of the affiliated colleges. In accordance with the regulations framed under Section 2 (f) of the UGC Act, the Commission maintains a list of colleges which fulfil certain minimum conditions and are eligible to receive assistance for various schemes. This list does not include colleges teaching up to Intermediate standard only. So far 1,404 colleges have been brought under the purview of the Commission. This number also includes government colleges which until recently had not been brought under the scheme of assistance to colleges. It is, however, regrettable that a number of cases have come to the UGC where affiliation has been granted to new institutions not having adequate funds, buildings or even staff.[2]

It may be noted that according to the present system, the affiliating university prescribes a uniform curriculum for various examinations of all its colleges. Such a policy introduces a rigidity and does not give free scope to a college or to its teachers to draw their own programmes suiting their individual needs.

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[1] *Supra.* pp. 196-98.

[2] UGC. *Report for the Year, 1961-62.* p. 13.

Our affiliating universities ought to be less rigid in this respect. They may prescribe a general outline of the total programme, and fix the minimum basic courses to be covered by each student in different fields. But an individual college and its teachers may be left free to work out the details of the courses suiting local requirements. It will, however, be necessary for the individual college to seek the university's permission, in case it feels it necessary to deviate from the prescribed policy. The college can also present its own case to the university through its representative on the Senate. The University Local Inquiry Committee should also pay attention to the requirements of individual colleges and should see how their programmes need certain modifications and adjustments.

EXTENSION

INTRODUCTION. — One of the major weaknesses of the existing colleges or universities of India is their divorce from the people. They are so walled in from outside influences that they cannot adequately develop and grow with the general community — local, national or international. Such a policy is suicidal. As James Rowland Anjell says:

> The University is in essence a living organism, and is inevitably subject to the principles of evolution. It cannot remain static. To do so would be to perish.[1]

Thus it will be necessary for our colleges and universities to bring themselves closer to the community. This can be done through conducting: (1) suitable adult education programmes and (2) community service.

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[1] J. R. Anjell, "The University Today: Its Aims and Providence," *The Obligations of University to the Social Order*. New York, Oxford University Press, 1933, p. 12.

ADULT EDUCATION PROGRAMMES.— These programmes can be of the following types: (1) Continuing education — giving opportunities to educated adults to attend classes with regular students, either for their mental stimulation or for their vocational objects; (2) Refresher courses for experts in their own special fields; and (3) Leadership programmes.

COMMUNITY SERVICE. — Besides arranging a series of extension lectures for the community as is being done at present, an Indian university or a college can very well organise the Entertainment and Speakers' Bureau — a common activity of American State universities. For example, the University of Wyoming has such a bureau. Its main functions are enumerated below:

> The bureau is a coordinating agency between community groups within the state who wish the services of discussion leaders, speakers, entertainments, and other types of talent and the personnel in the various departments and colleges of the University qualified to render such services. Under this bureau the University is, within limitations, prepared to make available to communities in the State, speakers, musical entertainment, dramatic productions, art exhibits or a creative arts series, a packet loan service on sundry state, national and international problems, and a monthly program planning service.[1]

Most of the universities have now their own schemes of extension work, which establish some contact between the general public and the university teachers. Generally, extramural lectures on certain topical subjects are delivered by teachers so that the general public may have some idea of the developments in the world around. The UGC is also financing such programmes. During 1960-61, the Commission paid as a contribution a sum of Rs. 0·55 lakhs for this purpose.[1]

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[1] University of Wyoming. *Bulletin*, 1953-54, Vol XLX, No.1. p. 405.

AFFILIATION

These are some of the main problems of university education. In fact, many of the seeming obstacles are due primarily to the fact that our universities have been exotic and have not grown from the soil. They have been transplanted to India overnight, root, branch and foliage and have not grown with the growth of the nation. They neither resemble their European proto-types such as the University of Paris springing from the quickening intellectual atmosphere created by a great teacher or a band of scholars, nor are they like Nalanda or Taxila satisfying cultural thirst and aspirations of the people. In 1857, authorities of this country did not realise that a university develops spontaneously and is never an outcome of a state order. In the initial stages, Government ought to have collected scholars and learned men — pundits and *maulvis* (Muslim scholars), missionary scholars and advocates of eastern and western learning. Instead of doing that, the Government mainly utilised the services of administrative officers. Thus our universities were originally corporations of administrators rather than assemblies of learned men. Had the Government adopted the right policy, these very centres of learning would have been quite different from the poor universities of 1857.

In spite of all that can be said against our universities, it must be conceded that the progress of our motherland during the last one hundred years has been mainly due to the efforts of our university men. Indian universities should maintain high ideals, academic freedom, a growing search after truth and knowledge, and the freedom to hold and express true opinions.

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[1] UGC. *Report for the Year, 1960-61.* p. 32.

They are the real organs to produce right types of citizens for Free India. In this connection, one is reminded of a passage from Cardinal Newman's lectures on the 'Idea of a University'. These lectures were delivered over a hundred years ago, still they give a direction to the universities of the present age. Newman says:

> A university training......aims at raising the intellectual tone of society, at cultivating the public mind, at purifying the national taste, at supplying true principles to popular enthusiasm and fixed aims to popular aspiration, at giving enlargement and sobriety to the idea of the age, at facilitating the exercise of political power and refining the intercourse of private life.

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CHAPTER SEVEN

EDUCATION OF GIRLS

INTRODUCTION

The advancement of women is the most significant fact in modern India. "If," wrote Mr. K. Natarajan, "a person who died a hundred years ago came to life today, the first and most important change that would strike him is the revolution in the position of women."[1] A century ago, girls' education had open enemies in India, but it is now a *sine qua non* of India's social and national development. It had to face many peculiar difficulties: the systems of purdah and child marriage, indifference of parents to the education of their daughters, distrust in western system of girls' education, financial pressure on the middle classes, lack of suitable curricula for girls, absence of women teachers and girls' schools, and allied problems.

During the last fifty years, however, girls' education has passed from the stage of ridicule and indifference to that of eager activity. The girl in India is no longer a step child of nature nor a Cinderella of fate. She considers herself a powerful element in national life.

DEVELOPMENT OF GIRLS' EDUCATION

INTRODUCTION. — In spite of such a wide awakening, it pains one to find that according to the census of 1961 the percentage of literacy amongst women is 12·9 only.[2] In fact, the progress of girls' education had been very slow and halting during the last century and a half. This can be evident from the following account.

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[1] *Indian Social Reformer*. September 25, 1937.

[2] *India*, 1962. p. 69.

UNDER THE EAST INDIA COMPANY. — The East India Company did not consider it necessary to educate the fair sex, perhaps because lady clerks or officers were not required for administrative purposes. At the same time, a variety of odd superstitions held back girls' education. Thus William Adams wrote about female education in 1838:

> All the established native institutions of education exist for the benefit of the male sex only, and the whole of the female sex is systematically consigned to ignorance, and left wholly without even the semblance of a provision for their instruction.[1]

During the Company's rule, there were no separate state schools for girls, and hardly a few girls were attending boys' schools. Most of the girls' schools were run by missionaries and a few by private bodies. In 1851, the Protestant Missions were conducting 86 boarding schools and 285 day schools for girls with an enrolment of 2,274 and 8,919 respectively.[2] The Roman Catholic Missions were also active, but the figures for their schools are not available. A number of private schools were conducted by British officials and non-officials in their private capacity. The most important institution of this type was the Bethune School, which was founded in 1849 by Mr. J. E. D. Bethune, the Legal Member of the Supreme Council of the Government of India. This school gave an impetus to Indians to start similar institutions in the country.

According to the Educational Despatch of 1854, the total number of girls' schools was 256 in Madras, 65 in Bombay, 288 in Bengal and 17 in North Western Provinces. In the Punjab, the traditional education of women had continued as an indigenous effort and the modern type of girls' schools had just begun to come into existence.

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[1] A. N. Basu, ed. *Adam's Reports*. Calcutta University, 1941. p. 452.

[2] Sherring M. A. *The History of Protestant Missions*. London, The Religious Tract Society, 1884. pp. 442-47.

FROM 1857 TO 1902. — The Indian Education Commission of 1882, while examining the question of girls' education, remarked, "Female education is still in an extremely backward condition and needs to be fostered in every legitimate way." It recommended that it should receive a larger share of public funds. As a result, state funds were spent more freely on girls' education. There was a sharp rise in private efforts also. Owing to these two factors, girls' education progressed. This was specially noticeable amongst Europeanised communities, viz., the Brahmo Samaj, the Parsees and the Christians. In 1901-02, there were 12 colleges, 467 secondary schools, and 5,628 primary schools for girls, but the total girl enrolment in all educational institutions was 447,470 only.

FROM 1902 TO 1917. — But very soon, the feeling of passive apathy was changed into active sympathy owing to sentimental and material causes. Parents were gradually realising that the education of their daughters was as much a part of their duty as the education of their sons. The demand for educated wives also developed. The Education Departments also took some active steps and devised new plans for spreading education, viz., separate schools for girls were started, arrangements of conveyance for taking girls to schools were made, inspectresses were appointed, liberal prizes were offered to girls and fees were remitted at times, many schools run by local bodies were transferred to Government, favourable grants were given to private girls' schools, teachers of boys' schools were rewarded for every girl whose attendance could be secured, steps were taken to attract ladies to the teaching profession, and provincial committees with a fair proportion of lady members were set up for discussing the problems of girls' education.

The above steps gave a great encouragement to girls' education. In 1904, Mrs. Annie Besant established the Central Hindu Girls' School at Banaras with the object of imparting western education to girls quite separately from boys in a modernised school of Hinduism. In 1916, the first medical college, Lady Hardinge College, Delhi, was established for the fair sex in the country. The Women's (S. N. D. T.) Universtiy was also established in the same year. In 1917, there were 12 arts colleges, four professional colleges and 166 secondary schools for girls. The enrolment also showed an increase, but the majority of girls, however, did not continue their studies in schools for a long period.

FROM 1917 TO 1947. — This period was marked by the rapid disappearance of all the prejudices against the education of women, and there was a rapid growth in their education. This will be evident from the following table:

TABLE 43

Girls Under Instruction, 1921-22 to 1946-47*

Institution	1921-22	1931-32	1941-42	1946-47
Primary Schools	1,087,131	1,944,070	3,123,643	2,715,230
Secondary Schools	124,954	196,170	410,333	442,403
Arts & Science Colleges	1,207	2,685	11,778	16,284
Professional Colleges	266	521	1,725	2,468
Professional Schools	19,570	17,568	40,869	38,375

* Figures for 1921-22 to 1941-42 relate to former British India, while those from 1946-47 are for post-partitioned India, less former Indian States.

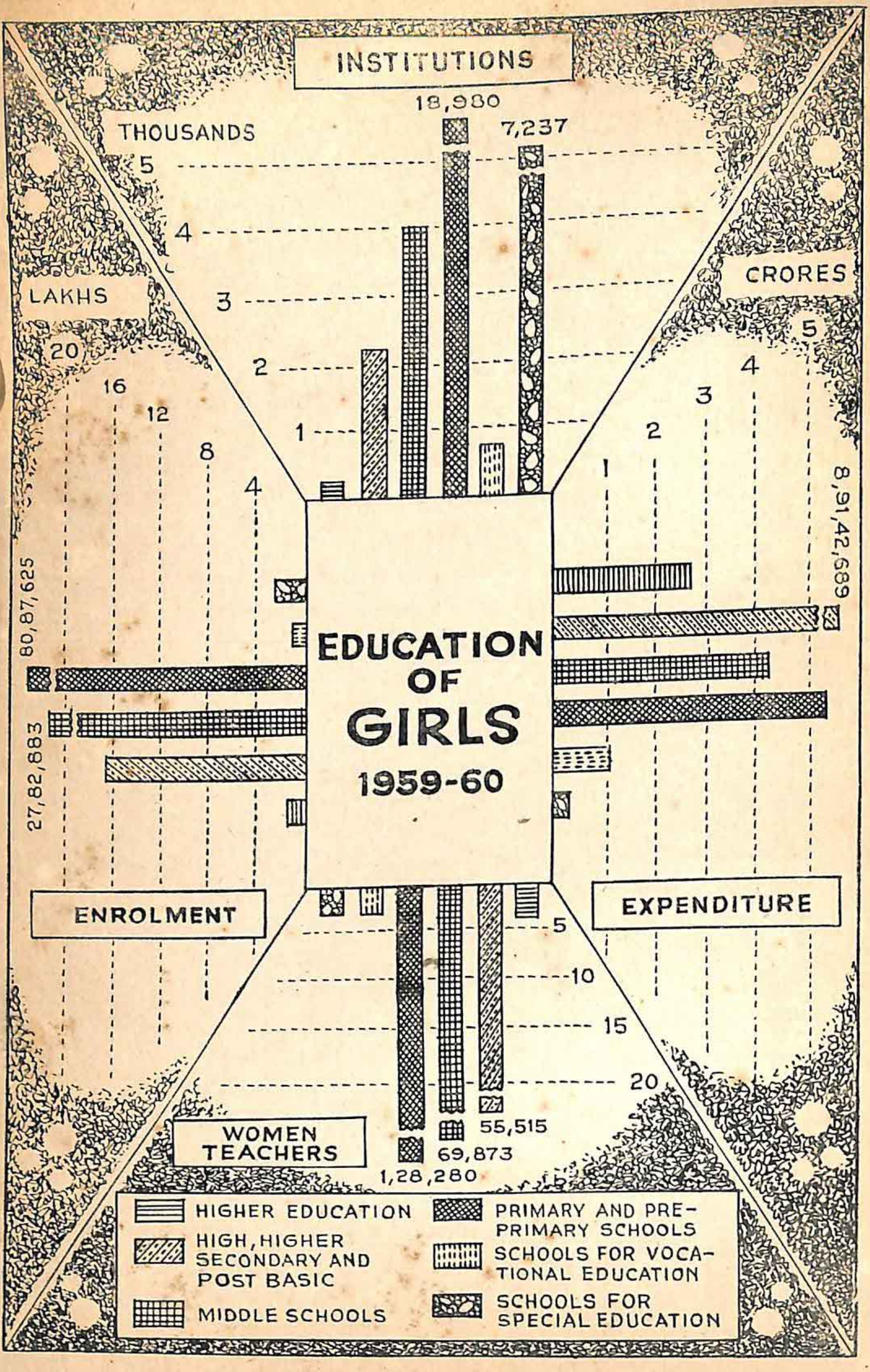
The period from 1917 to 1947 is one of significant developments in India. It includes the economic and social impact of the two world wars, the national awakening in India, progress in economic and social matters, and finally the winning of freedom and the partition of the country on August 15, 1947.

The women's movement in contemporary Europe and the U.S.A. inspired the women of India to fight for their emancipation and knit them together in close organisations. Among the earliest of women's organisations was the Women's Indian Association, founded in 1917 under the guidance of Dr. Annie Besant and Mrs. Margaret Cousins. In 1925, the National Council of Women was established. It has now fourteen state branches and is affiliated to the International Council of Women.

Sharing in the ideals and programmes of the National Council of Women was the All-India Women's Conference, which was first held in 1927. It not only reiterated demands for equality of educational opportunities but also agitated for the education of women and amelioration of their social position.

The greatest impetus to women's cause, however, came from the national movement launched by Mahatma Gandhi. His appeal to Indian mothers for the country's cause fired their spirit of nationalism. Thousands of Indian ladies came out of the *purdah*, and suffered the same hardships as men did, whether it was in standing up to *lathi* charges by police, imprisonment in jail or for breaking intolerable laws. Numerous public gatherings of women are now annually held to discuss programmes of social and educational reconstruction. The Sarda Act has also made child marriage illegal throughout the coutry and is making it possible for many girls to enjoy girlhood, otherwise they used to pass from childhood to marriage all of a sudden. These factors have contributed a good

ILLUSTRATION 7



deal to the growth of girls' education. All have fully realised that the education of the girl is the education of the mother, and through her of her children.

THE PRESENT POSITION

INTRODUCTION. — The overall figures of girls' education at all stages during recent years show an impressive advance. During 1947-48, there were 16,951 institutions reserved for women and the total enrolment of girl students in institutions of all kinds was 35,50,503. The corresponding figures for 1960-61 were 41,674 and 1,42,59,047 respectively. Thus there is a keen desire for the education of girls, and the demand rises every year.

It is interesting to note that during the post-independence period the education of girls has been progressing more rapidly than that of boys at all stages of education. This will be evident from the following statistics.

TABLE 44*

Stage	1949-50		1959-60	
	No. of Girls Enrolled	No. of Girls Enrolled to every 100 boys	No. of Girls Enrolled	No. of Girls Enrolled to every 100 boys
1	2	3	4	5
I. *University Education*				
Research ..	85	10	657	22
M.A. & M.Sc.	1,656	14	7,679	24
B.A. & B.Sc. ..	10,759	14	52,439	27
Intermediate (Arts and Science) ..	23,540	13	76,643	18
Professional Ed.	4,055	5	22,246	9
Special Ed. ..	771	18	6,570	31
Total ..	40,866	13	1,66,234	25

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* Government of India. *Programmes of Educational Development*, 1961-66. pp. 17-17A.

1	2	3	4	5
II. *School Standard*				
High/Higher Sec. ..	7,08,007*	19	5,32,962	23
Middle ..	—	—	15,06,475	32
Primary ..	50,34,740	40	1,03,63,144	47
Pre-primary ..	12,306	91	62,107	91
Total ..	57,55,053	35	1,24,64,688	43
III. *Vocational Edn.*	35,760	28	78,097	28
IV. *Special* Edn. ..	1,79,641	16	2,41,434	18
Grand Total ..	60,11,320	33	1,29,50,453	41

* Includes figures for middle school education.

In spite of this development, the girls' education tends to lag behind that of boys. For example, in 1950-51, about 60 per cent of the boys were in primary schools as against about 25 per cent of girls. In 1965-66, these proportions will be 90 and 62 respectively. At the middle school stage, the Third Plan aims at almost a doubling of the number of girls at school as against the total increase for the age-group of about 54 per cent. However, the disparity between boys and girls will be still a marked feature. For, against 40 per cent of the boys at school from this age-group the proportion of girls is likely to be less than 17 per cent. At the secondary stage, it will be observed that although the number of girls in Classes IX-XI increased from 2 lakhs to 5·2 lakhs during 1951-61, girls constituted less than one-fifth of the total number of boys attending secondary schools. At the end of the Third Plan, only about 7 per cent of the girls would be availing of secondary education facilities as compared to about 24 per cent of boys in this age-group. Thus there is a serious disparity between enrolmens in the two groups which, in turn, affects the number of women available for filling such positions as teachers, nurses, village level workers, social workers and others.

For bringing all girls of the relevant age-group to school, the Education Ministers' Conference suggested:

1. The construction of quarters for women teachers;
2. Improvement in the training facilities for women teachers;
3. Recruitment of women teachers on a large scale and, as an interim measure, appointment of school mothers;
4. Provision of hostels for girls for rural areas;
5. Provision of free education to girls till the end of the secondary stage to increase the supply of teachers;
6. Utilisation of the services of adult women on a part-time or whole-time basis; and
7. Provision of suitable incentives to students wherever necessary.

The Conference further recommended that the special programme of girls' education should be taken up as a Centrally-sponsored scheme on the basis of 100 per cent grant outside the State plan ceilings.[1]

ADMINISTRATION. — Girls' education in India is greatly handicapped for want of a proper organisation, which is mainly due to the weaknesses of the administrative machinery. Practically no State has a separate post of a deputy directress; and considering the task before the country, the total number of inspectresses in Classes I and II is only 145 today.[2] Administration of girls' education is carried on mostly by the inspecting agency of the other sex.

The progress of education depends a good deal on careful planning, and hence the administration of girls' education cannot be entrusted exclusively to the male sex, which is already overworked and has practically no time to pay attention to the education of girls. Hasty and ill-advised schemes are often put forth, and thus the cause of girls' education suffers.

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[1] *Times of India.* November 13, 1963.

[2] *Education in India*, 1959-60, Vol. I. p. 33.

The National Committee on Women's Education has suggested that an administrative machinery should be set up at the Centre and in the States which would be specially concerend with the implementation of girls' education programmes in different sectors. On the recommendations of the Committee, a National Council for Women's Education was set up at the Centre in May, 1958. It consists of a chairman and 23 members — a representative of each of the fourteen States, a representative of CABE, two members of the Parliament, two representatives of the Union Ministry of Education, a representative of Union territories, and a representative of each of the following Ministries: Community Development, Health, and Labour. Non-official members will hold office for two years. Councils for Women's Education have also been established in all States and Union Territories except Tripura.

It will also be desirable for every State to have a deputy directress for directing the educational policy of girls' education. She should be helped by an adequate number of inspectresses. Every district ought to have at least one inspectress, and women supervisors must be employed by local bodies for looking after primary education of girls. In short, girls' education cannot progress without wise advice, careful counsel and efficient control.

PRIMARY EDUCATION. — The number of girls at the primary stage increased from 53·08 lakhs in 1950-51 to 138·3 lakhs in 1962-63. Thus the enrolment has been more or less doubled. Still it is painful to note that, on an average, one in every four girls of school-going-age was in school. It is also interesting to note that approximately 80 per cent of girls were on rolls of the schools for boys.

The magnitude of wastage continues to be large. Out of every 100 pupils admitted in class I in 1956-57, only 41 reached in Class IV in 1959-60. Wastage was more pronounced in the case of girls than that in the case of boys, the percentage of wastage being 55·7 and 64·05 respectively.[1] This shows that the school-life of girls is shorter than that of boys. It is mainly because many parents are not serious about the education of their daughters and perhaps girls are more useful than boys in their homes.

The majority of the girls are studying with boys. In fact, separate schools for girls are fast disappearing. It is indeed true that the needs of the girls are almost alike at the primary stage, and hence there is hardly any need to make a difference in the curriculum except that subjects like music, painting, needle-work, simple hand-work and cooking have also to be introduced wherever they do not already exist to make courses more suited to girls.

SECONDARY EDUCATION. — The enrolment of girls both at the middle as well as at the high school stage increased considerably. This will be evident from the following table.

TABLE 45

Secondary Education of Girls*

	Enrolement (in lakhs)		Percentage of girls in schools in the age-group	
Year	VI-VIII	IX-XI	11-14	14-17
1950-51	5·3	1·90	4·5	1·7
1955-56	8·7	3·32	6·9	2·8
1960-61	14·7	5·27	10·8	4·3

* Government of India. *Programmes of Educational Development* 1961-66. pp. 16-17.

Besides the quantitative progress, there is a general qualitative advance too. This will be evident from the number of girls passing the School Leaving or the Matriculation Examination. During 1959-60, as many as 1,13,123 girls passed that examination as against 36,295 in 1951-52.

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[1] *Education in India,* 1959-60, Vol. I. p, 299.

Another notable development is the introduction of Home Science in the secondary school curriculum due to the organization of the multilateral courses. As many as 646 higher secondary and high schools are offering home science as a composite subject.[1] Many of these institutions are in need of trained home scinece graduates as teachers.

In spite of this development, the courses of the secondary stage have not been drafted to meet the special needs of the fair sex. It should be realised that the majority of girls do not continue their studies beyond the middle stage. Hence the courses of studies should include such subjects as will give them adequate knowledge and training to be good homemakers and at the same time give them wide scope to select one suitable elective which will give them a useful introduction and grounding for taking up careers as that of a *Gram Sevika*, a *Bal Sevika*, any other social worker, midwife, health visitor, a craft teacher or any other similar vocation. The middle school curriculum should, therefore, also include house craft and suitable pre-vocational courses as electives for girls.

It is also necessary to provide deversified courses of a pre-vocational nature, which are suited to girls of the high school stage. This is justified especially in view of the fact that we require lakhs of trained women for various development projects in the fields of education, health, social welfare, small-scale industries and the like. We have also to conceive of certain courses which can be usefully introduced so that girls can take up certain jobs on a part-time basis to suit the varying needs of Indian families.

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[1] R. P. Devdas, ed. *Classified Directory of Home Science Institutions and Workers in India*. Delhi, Home Science Assdiation of India, 1962. p. ii.

HIGHER EDUCATION. — The prospects for girls' college education are now also brighter, and the demand for higher education is rapidly increasing. During 1960-61 the total number of girls' colleges was 165 (arts and science), 97 (professional and technical education), 21 (special education.)[1] Of the total university enrolment of 12·72 lakhs in 1962-63, about 2·33 lakhs were women. Women students thus constitute 17·6 per cent of the total enrolment, the corresponding figures for the U.K. being about 24 per cent. The output in different university examinations is also increasing. This can be evident from the following table:

TABLE 46

Output Of Girls In University Examinations

Examination	1949-50	1959-60
Intermediate	8,252	25,091
B. A. and B. Sc.	4,694	18,554
M.A. and M.Sc.	744	4,186
Professional Subjects (Degree only)	1,232	6,166

So far as the curriculum is concerned, it is more or less the same for boys and girls at this stage too. Some special institutions catering to the special needs of girls have, however, been founded. The most important institution of this type is the S.N.D.T. Women's University. This is the only university in India, which provides education "specially suited to the needs and requirements of women."[1] The Prayag Mahila Vidyapeetha, Allahabad,established in 1922, aims at spreading, regulating and supervising secondary and higher education of women. The examinations held by the Vidyapeetha are: *Praveshika*, *Vidya Vinodini*, *Sugrihini*, *Vidusi*, *Saraswati* and *Bharati*. The Arya Kanya Mahavidyalaya, Baroda, is a residential institution conducting suitable courses for girls up to the post-graduate level. It lays a great stress on physical activities.

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[1] *Education in the States*, 1960-61. p. 2

[2] UGC. *Report for the Year*, 1962-63, p. 27.

During recent years, courses in Domestic or Home Science are offered in as many as 24 universities. Of the 75 colleges teaching this subject, eight are now offering post-graduate courses. These are: (1) Faculty of Home Science, Baroda; (2) Lady Irwin College, New Delhi; (3) St. Theresa College, Ernakulam; (4) Queen Mary's College, Madras; (5) Women's Christian College, Madras; (6) S.I.E.T. Women's College, Madras; (7) Sri Avinashilingam Home Science College, Coimbatore; and (8) Maharani's College for Women, Bangalore.[1]

Another important development is the formation of the Indian Federation of University Women and its seven state branches. The Federation safeguards the academic interests of women and their right to entry into the widening streams of vocations and professions on equal terms with men.

VOCATIONAL AND TECHNICAL EDUCATION. — Table 47 gives the total enrolment of girls in different types of vocational and technical institutions:

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[1] R. P. Devdas. *op. cit.* pp. i-ii.

TABLE 47

Professional and Vocational Education of Girls, 1960-61*

Branch	Colleges		Schools	
	Ins.	Enrolment	Ins.	Enrolment
Professional Ed.				
Agriculture ..	—	149	1	74
Commerce ..	—	863	6	17,034
Engineering ..	—	333	—	544
Law ..	—	805	—	—
Medicine ..	4	8,226	121	6,536
Physical Ed. ..	1	159	—	515
Teachers' Trg...				
Basic ..	42	5,448	164	24,178
Non-Basic	50	9,804	93	7,304
Technology ..	—	41	—	—
Technical Industrial and Arts & Crafts ..	—	—	472	28,975
Veternary	—	47	—	—
Other Subjects	—	283	—	290
Total ..	97	26,158	857	84,450

* *Education in the States,* 1960-61. pp. 2-5.

It will be evident from the above table, that in several branches institutions for girls are non-existent and that the largest enrolment is in teacher education institutions. The National Committee on Women's Education, however, pointed out that the facilities for training of women teachers were unequally developed in different States, creating surplus supply of teachers in some areas and acute shortage of teachers in others.

In professional field, nursing is largely a monopoly of women. Schools of nursing have been in existence for a number of years and have been giving certificates and diplomas to those trained in them. In 1946 two colleges of nursing offering a Bachelor of Science in Nursing were set up. The Nursing Council was constituted under the Nursing Council Act of 1947. A third college was started in 1959 and a fourth started functioning in 1961. In addition to this, the College of Nursing, New Delhi, has started a post-graduate degree in nursing.

After partition in 1947, the Government of India was faced with the problem of helping widows and single women among refugees. Most of them were illiterate. To enable them to earn a living centres and institutions of various types and sizes were set up, where women learn sewing, embroidery, needle work, spinning, weaving, etc. The products of these centres are marketed through voluntary organisations. An important type of such centres was production-cum-training centre. Some of these centres offered training in machine sewing trades and in dress designs, and produced goods against contracts. A few of these training projects later worked with professional training schools, which offer certificate courses to refugee and non-refugee women. These centres are located mainly in the States which received displaced persons and were responsible for rehabilitating them.

The Government of Madras has a Department of Women's Welfare which offers training facilities to young widows and deserted women. Three years of training are provided, without cost and include general education up to eighth form, hand spinning and weaving and in trades such as sewing, book-binding, office work.

Training is also being provided to girls by Kasturba Gandhi Trust and by official institutions set up to train staff for community development projects. These will be dealt with in a later chapter.

The Central Training Institute of the Ministry of Labour and Employment in New Delhi imparts training in cutting, tailoring, embroidery and needle work. The Institute formed a part of the Scheme for Training of Craft Instructors. Its seating capacity is proposed to be raised from 32 to 80 during the Third Five-Year Plan.

A scheme for technical education and vocational training for girls has been drawn up by the Government of India under which competent authorities may establish polytechnics, technical schools and integrated institutions for girls. The polytechnic for women, to which girls who have passed matriculation or higher secondary examinations are admitted, provides training in electronics, pharmacy, stenography and secretarial practice, architectural draughtsmanship, civil engineering draughtsmanship, costume design and dress-making, commercial art, medical laboratory technology, institutional management, interior decoration, and library science. Provision has been made for the award of diplomas to those who complete the prescribed course. The courses may be of the duration of 3 to 4 years.

The Government of Madras has sanctioned in its budget for 1962-63 the establishment of a polytechnic in Madras. Polytechnics have been started in Kakinada, Hyderabad, Bangalore and Trivandrum.

Another recent development is the Training of women workers for the Community Development Projects. Each developmental block requires: (1) one *mukhya sevika* or the principal women worker, (2) two *gram sevikas* or village-level workers, (3) one lady health visitor, and (4) four midwives. There are at present 10 *mukhya sevika* centres with a total capacity of 410, and till 31 December 1961, 1,374 *mukhya sevikas* had received their training in these centres. The training period extended to 46 weeks, and includes study tours and camps. Health and sanitation, home management, agriculture and animal husbandry, rural arts and crafts, and human behaviour are some of the subjects, in which they receive training.

The training for *Gram Sevikas* which lasts for one year, covers all aspects of home life, nutrition, housing, clothing, pre-natal and infiant care, child care, health and sanitation, agricultural extension and community development. Till the end of 1961, 44 training centres with a capacity of 1,725 had been set up, and 2,981 *Gram Sevikas* had received training.[1]

The Central Ministry of Education is also contemplating to set up a post-graduate institution in management organisation and administration on a national level for ladies. It will provide a two-year course and will train 75 women trainees in each course.[2]

ADULT EDUCATION. — A remarkable development between 1947 and 1961 is the growth of educational centres for adult women. Today, there are more than thirteen thousand adult education centres for ladies, and the enrolment at different centres exceeds two lakhs.[3] As an official report remarks:

> Experience has proved that married women, whether in villages or towns, do take kindly to adult literacy campaigns. Wherever suitable opportunities have been offered, women have taken full advantage of them.

RETROSPECT

A NEW OUTLOOK. — As discussed earlier, the women's movement in India was a corollary of the nationalist movement. Great sons and daughters of this land worked as a closely knit team, imbued with the spirit of national service. They laboured together to remove the indignities that outmoded customs and beliefs had heaped upon women. Though born and bred in an atmosphere of political struggle, the womens' movement in India did not, like its Western counterpart, take the form of an angry feminist revolt.

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[1] International Labour Office. *Working Women in Changing India.* New Delhi, Indian Branch, 1963. p. 88.

[2] *The Hindustan Times*. January 4, 1962.

[3] *Education in the States*, 1960-61. pp. 3-5.

Today the Indian woman has equal rights with man to individual and social status: right to education, right to work with adequate wages and security of tenure, right of freedom of association, right to property, and right to health and leisure. Article 39 of the Indian Constitution lays down:

> 1. The citizens, men and women, have the right to an adequate means of livelihood.
>
> 2. There is equal pay for equal work for both men and women.

The two World Wars have also brought women to the forefront and have shown that sex limitations need not discourage the fair sex from entering occupations once thought exclusive for men. Under the Constitution, all professions and offices are open to women in India except the Army, Navy and Air Force, where women are not eligible as combatants. The number of women working in different offices and professions is increasing every day. As a government officer recently remarked, "I have never seen so many girls working in offices as they are today." According to the Indian Census between 1901 and 1961, the number of women workers increased from 37·3 million in 1901 to 59·4 million in 1961.

Educated women mostly work as teachers, nurses and midwives. In addition, they are engaged in many other professions. They work as radio artistes, announcers and programme executives or assistants; in government and commercial offices as receptionists, clerks, typists, stenographers; as telephone and telegraph operators; in shops as sales girls; as air hostesses and journalists. In higher professions, the largest number may be that of doctors; one also finds today women in the Indian Administrative Service, Indian Foreign Service and other all-India services, while there is a small number of lawyers, magistrates, engineers, scientific and research officers and so on. In the network of community development extension and social welfare projects, the number of women has grown considerably during the last ten years.

PART-TIME EMPLOYMENT. — Another trend during recent years is the movement for part-time employment of women throughout the world. Women need part-time jobs due to socio-economic reasons. They cannot take up full-time employment, as they have to run a household and bring up children even though they may be fully equipped for work. At the same time due to the general rise in cost of living, a large number of ladies find it necessary to add to family income. With the lessening of kitchen drudgery, availability of domestic help and the desire of women not to remain confined within their homes, work for a part of the day is considered desirable. Then there are widows, separated wives and single women, who must earn and have also to look after their family. At the same time, part-time workers are helpful in certain jobs where a sufficient number of full-time employees are not available. This is why the National Committee on Women's Education recommended that 'as a policy the employment of women on a part-time basis, wherever possible, should be accepted and more opportunities should be thrown open to women in the form of part-time work, which can be undertaken in and outside home.'[1]

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[1] Indian Ministry of Education. *Report on National Committee on Women's Education*. Delhi, Manager of Publications, 1959. p. 115.

WOMEN AND EDUCATION. — Thus Indian women are now venturing in thousands to compete with men in different walks of life. With their improved social status and their claims to educational opportunities receiving greater recognition, the old attitude towards women's education has given place to an appreciation of its urgency and value. As the Hartog Report says:

> The importance of the education of girls and women in India at the present moment cannot be overrated. The middle and high classes of India have long suffered from the dualism of an educated manhood and an ignorant womanhood — a dualism that lowers the whole level of the home and domestic life and has its reaction on personal and national character....The innate intelligence of the Indian woman, her feeling of domestic responsibility, her experience of household management, make her shrewd, penetrating, wise within her own sphere.... The education of women will make available to the country a wealth of capacity that is now largely wasted through lack of opportunity.[1]

Women's education is gradually increasing, and India needs a sufficient number of girls' schools to cope with the rising demand.

Even so, the strength of women students in colleges is far below in proportion to that in schools. Their number in colleges is also much lower than that of the boys. The reasons for this state of affairs are obvious. When the choice has to be made as to who should be given preference for higher education, when the family's resources are limited it is the boy in the family that gets the benefit of it. The parents argue that the boy is their prospective bread winner while the girl will get married and leave the home. The second reason is the social custom of seeing the girl settled before the age of eighteen while the boy gets married usually not before twenty-four. Every parent irrespective of his social status likes to see his daughter settled. And always he gives marriage precedence over college education. He feels that educating the girl up to the secondary stage is more than sufficient.

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[1] *Hartog Report*. pp. 150-151.

Another reason for the lesser number of girls in colleges is that those who come from the lower income groups realise that the major portion of the parent's income has to go towards the education of their sons. Girls are sensitive to this and so they go in for shorter technical, vocational and professional courses such as shorthand and typing, tailoring and embroidery, nursing, midwifery, health visitors' course and *gram sevikas*, which do not require a university degree for seeking admission. An additional attraction for this type of training is the stipend that some of these training courses offer and the employment that they ensure. Girls want to be economically independent as early as possible.

IDEALS OF WOMEN'S EDUCATION. — There are at present two divergent views on the subject of women's education. One is the orthodox view that a woman's place is the home and that the education of girls must be different from the education of boys. The other view is that India needs women outside the four walls of their homes and as such they should be given precisely the same education as man. Whatever the view taken on this question, one fundamental objective must be constantly kept in view in all educational schemes. Indian women have some traditional ideals to guide and inspire them, and in the pursuit of the recent urges of "modernity" and progress these should not be discarded. In other words, Indian women must be Indian and the content of women's education should be such that they would not fall prey to these urges.

It is also noticed that education of girls in India today is a mere replica of the education given to boys, and their special needs are not carefully considered. Practically, there is no special provision for teaching the girls anything outside the boys' curriculum. The result is that some of the objectionable features of boys' education are slowly developing in the education of girls too. As an official report has remarked, "The history of men's education in the province should be a warning, lest women's education also founder in the same morass. The symptoms are ominous and great vigilance is undoubtedly needed." During 1961, the number of women applicants who registered themselves in the employment exchanges in India was 218,391, of whom 29,607 were placed in employment.[1] This is a real warning. Unemployment among men is bad enough; unemployment among women will be terrible.

In short, very little thought has been given to the education of women in our country. Our schools and colleges are more or less the places of preparation for a man's world. But it should not be supposed that women are to keep themselves busy at home only, while their husbands are engaged in really important work. "They," as the Radhakrishnan Commission has observed, "are fitted to carry the same academic work as men, with no less thoroughness and quality. The distribution of general ability among women is approximately the same as among men."[2]

Thus the home and hearth are not the only two places for our sisters. They should be quite worthy of the responsibilities both inside and outside the four walls of the house. Their activities should not be confined to the pigeon holes of domestic life. Those, who would like to follow the curricula for men, should be allowed full liberty to do so. The present system with all its faults has produced personalities like Mrs. Sarojini Naidu, Dutta sisters, Mrs. Vijayalakshmi Pandit, Rajkumari Amrit Kaur, Shrimati Hansa Mehta and many others. India is badly in need of such leaders.

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[1] International Labour Office. *Working Women in Changing India. op. cit.* p. 27.

[2] *University Education Commission's Report.* p. 393.

Thus utmost care is to be taken for developing a balanced personality in the fair sex. We should further realise that the ideal of women's education in our country stands in need of being defined in the context of our political, social and economic relation to our existing national life. "It should take into account", as the National Committee on Women's Education says, "the fact that the changed times impose responsibilities and obligations on them side by side with rights and privileges." There are, for example, the growing stress of economic conditions, the need for women playing an active role as citizens under a democratic regime and the vast opportunities that women in Indian families (as of course in families in other countries) have (and should utilise) to function as educative influences in the family circle and eventually in the evolution of Indian nationhood.

CO-EDUCATION. — Another burning problem is co-education. There are divergent opinions on the problem. In the ancient Hindu sytem, co-education was not at all in existence. The popular feeling was against co-education. The Hindus believed that a young boy is like fire and a young girl like *ghee* (purified butter). Even when girls were taught at home, strict injunctions were laid down about the choice of the teacher.

But at present, co-education is very popular in India and more than fifty per cent. of the girls study in boys' schools. Separate primary schools for girls should not be started at all sorts of places. For example, there is no need for running separate girls' schools in such small villages where the total number of school-going children may not even justify the establishment of a single school. Even in towns, it is better to have a mixed school for every square mile than to have a few girls' schools situated at distant corners.

The same considerations weigh with a greater force at the university stage also, especially, when the number of girls studying in colleges is not large. Co-education is the prevalent practice at that stage and is quite popular in India. Professional institutions for women except for teacher education are almost absent, and even women's colleges for general education are very few. So far as co-education at the college level is concerned, India is far ahead of British universities which have a number of separate women's colleges. Special women's colleges are considered expensive and wasteful in India. Ladies also do not demand separate colleges for themselves. Practical experience has shown that, while women's colleges are starved for want of students, the neighbouring men's colleges attract a large number of lady students.

Thus the practice of co-education has not raised serious controversies at the primary and college stages in India. Even the usual arguments against co-education are not applicable so far as these stages are concerned. At the primary stage, neither the differences in physical and mental developments of boys and girls are very prominent nor is the sex consciousness very strong. At the college stage, a student of 17 or 18 of either sex is supposed to have obtained control over his or her impulses and to possess enough discretion. The ideas and attitudes of students towards life also begin to take a definite shape at this stage.

But the practice of co-education is very hotly debated so far as the secondary stage is concerned. There are supporters as well as opponents of the practice. The supporters contend that many of our social problems and disasters are mostly due to a wrong attitude, which men and women develop towards each other because of an isolated life that they lead during the years of growth and education. They hold that when education is the preparation for the life of a citizen, boys and girls can be properly prepared for a common citizenship in a surrounding common to both. It is believed that a good co-educational institution reproduces a happy family life; boys and girls live together and share common responsibilities and hence there is a better mutual knowledge and an improved moral tone than when they are eduated separately. Thus it is argued that boys and girls are not perfect strangers when they start actual life. A mixed school also claims to prowide opportunities for developing the best that is in pupils as boys and girls. It is also noticed that in a mixed school while girls are steadier and more broad-minded, the boys are more refined and keener in their work. In short, an unconscious desire to be at one's best in the presence of the other sex prevails amongst boys and girls in a co-educational institution. It is also held that lessons in a mixed school are brighter and the contributions of pupils are more varied and spontaneous than in a separate school.

On the other hand, opponents point out some serious disadvantages. The first clamour arises from mental and physiological considerations. A secondary school deals with adolescent children. The adolescence in girls sets in as a rule a year or two earlier than in boys. A girl requires rest during this period. She should not be overstimulated and the pressure of work should be avoided. There is also an instinctive desire for the separation of sexes during this period of change. It is also held that co-education often leads to premature sex stimulation which is injurious to growth.

Further, the interests of boys and girls are entirely divergent and the same technique of teaching cannot be applied to both the sexes. Generally, girls are more industrious and conscientious about their work than boys. Thus while girls tend to overwork, boys remain idle. Many have observed that girls seem to be more easily fatigued—both in mind and body—than boys. As such a competition between boys and girls is not desirable at this particular stage. It is also noticed that girls in a mixed school fail to develop their personality or individuality fully, because boys always play a prominent part in such institutions.

These are the main arguments for and against the practice of co-education at the secondary stage. There is not much opposition to the mingling of the sexes at primary and university stages. But because of the dawn of adolescence, the separation of the sexes is considered necessary at the secondary stage. Even then co-education appears to be the only solution until a sufficient number of girls' secondary schools are established. Some of the advantages of co-education can be secured by having a mixed staff. It is also noticed that special needs of girls never receive full consideration in a co-educational institution. Curriculum is arranged for boys, and the school is run more or less in their interest. Even provision for physical education and separate sanitary arrangements are absent. Subjects like music or home science are never taught, and girls seldom form a part of the corporate life of the school. Such an atmosphere has a depressing effect on girls, and these short-comings should be removed as soon as possible. A co-educational institution can be a success provided both the sexes share in school life and one sex is not subordinated to the other in any way. A good educational institution has to look to the needs of both the sexes. It should also be appreciated that mixed schools are not cheap. They are more expensive than separate institutions and can be run efficiently by first-rate persons alone.

EXPANSION SCHEMES. — It is indeed true that the problems of women's education should be regarded not in isolation, but in relation to national progress and requirements. Yet women's education needs some special considerations. A few suggestions covering different aspects of education are discussed below.

Primary Education. — The most disheartening problem at the primary stage is wastage. If the percentage of school-going girls is less than 60 per cent., the percentage of those who remain effectively literate is still less because by and large those who leave school sometime prior to the 4th class stage tend progressively to lose their literacy. The principal problem at the primary stage is, therefore, to ensure conditions under which compulsory primary education will cover all girls between the age of 6 to 14 and also that at the end of the compulsory education period they do not unlearn what they have learnt. To attain this objective, education at the primary stage should be linked up with training in some handicraft. Or in other words, it should be based on the basic model on the one hand and with ample facilities for post-literacy or continuation of education on the other.

It will also be necessary to induce the parents not only to send their girls to schools but to keep them there. This is an imperative need and this is particularly true of rural India. Broadly speaking, the situation demands that a more harmonious relationship between the home and the school should be brought about by formulating suitable curricula of studies and by removing some of the pressing economic and social factors which prevent parents, even though otherwise anxious to educate their girls, from taking advantage of available facilities.

Secondary Education. — It has already been pointed out that a great disparity exists between girls' and boys' education specially in rural areas. Many girls are compelled to give up education, owing to the absence of high schools. We should also pay attention to the special needs of women of the middle age, who are widows, unmarried mothers, women who want to work to supplement family income or to relieve the burden of aged parents, or women who have been denied social protection. The National Committee on Women's Education has suggested a number of special measures for augmenting facilities for secondary education: grant of liberal exemptions from rules to women seeking admission into secondary schools, free tuition, provision of adequate hostel facilities for poor and deserving girls and women, non-matching building grants to managements for construction of hostels, easy transport facilities, and free supply of book, stationery and other equipment to girls of poor parents and so on.

College Education. — As discussed earlier, the need for separate colleges for girls cannot be justified. But the curriculum needs some attention. In the first place, Home or Domestic Science should receive its due importance in the courses of study in all the universities. At the same time, the aesthetic side of education, viz., Indian art, drama, painting and music deserves to be encouraged. A number of Indian universities have already introduced some of these subjects in their courses of study, but their real merit has not yet been properly valued in the country. It should be realised that the appreciation of beauty is very necessary for the fullest development of personality.

At the same time, it will be desirable to provide training facilities to such grown-up women, as have completed their secondary education. They should be trained for such jobs for which women are specially suited, e.g., craft instructors, midwives, nurses, *gram-sevikas*, stenographers, etc. It will be desirable to organise condensed courses for these ladies.

Teacher Education. — The profession of teaching is very suitable to women, both physically and temperamentally. But there is a striking shortage of women teachers.

The figures of 1960-61 show that there were only 2·65 lakhs of women teachers out of a total of 14·2 lakhs. The average annual increase in the number of women teachers during the Second Five-Year Plan has been only about six thousand. The additional number of women teachers needed per year on the basis of additional number of girls targeted to be enrolled would be of the order of forty-three thousand or so for primary schools. The effort required to be made for increasing the output of employment of women teachers would obviously be about seven times as large as that in the second Plan. It is, therefore, important that each State fixes the number of women teachers to be appointed from year to year to reach the targets and takes up advance measures to ensure the supply of the required number of qualified women for the Fourth Plan.

Vocational Training. — At the same time, there is an urgent need to make a systematic survey of vocational training needs and opportunities for girls and women. The reports of the Employment Exchange Bureaux reveal that the majority of ladies are unable to get jobs since they have no vocational or professional training. It is the duty of appropriate authorities to analyse the use made by girls and women of existing training facilities in an effort to determine the factors which limit access by girls and women to all types of facilities and to encourage wider use by them of all types of facilities. It may also be of interest to give here the recommendations of the I.L.O. experts who undertook a mission to seven Asian countries in 1955 and 1956. The experts suggested that appropriate authorities should formulate plans and programmes for the training of girls and which would, *inter alia:*

1. promote the vocational training needs to develop earning skill outside the home;

2. extend training opportunities for women for industrial, commercial and public service occupations in accordance with the developing needs of each national economy;

3. promote awareness of new opportunities and needs for women workers in such fields as social welfare, nursing, chemical and pharmaceutical employments, and office work and of occupational shortage areas for which women might train; and

4. increase and variegate vocational training opportunities in village centres and in rural areas generally.[1]

Adult Education. — In the sphere of education of adult women and social education, a large leeway has to be made up. While the education of adult women, who did not have the benefit of early schooling, is basically one of teaching them to read and write, the aim of social education is wider and embraces, besides education in the three Rs., training in various items such as house-keeping and the principles of environmental sanitation, inculcation of the principles of civic sense and the responsibilities helping her in discharge of her citizenship rights, such as the exercise of the vote and participation in the organisation and functioning of the life of the community in which she lives.

So extensive is the field to be covered in respect of adult and social education that the State agencies should take the fullest advantage of the resources, man-power and enthusiasm of voluntary welfare organisations in propagating it. The National Committee on Women's Education has appropriately underlined the role of these organisations in this and in other fields of women's education and made a fervent plea for the elimination of handicaps under which these organisations have been labouring and for recognition of their role. They are both a training ground for educated women with an instinct for social service and the means of spreading education among other women. "The private educational institutions," it says, "must be regarded as full and equal partners with Government institutions in all matters regarding State's privileges and financial assistance."

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[1] Governments of Ceylon, India, Indonesia, Japan, Pakistan, Philippines and Thailand. *Report on Conditions of Women's Work in Seven Asian Countries.* 1958. p. 97.

CONCLUSION

The awakening among Indian women has been really considerable during recent years. They are making their influence felt in international affairs. Inside the country, there is a demand for equal rights. Nobody questions these rights, but one should appreciate that men and women are like the two halves (complementary and not contradictory) of humanity, making a perfect whole. It should be realised that equality does not demand the sacrifice of individuality, but each sex should try to develop its own peculiar talents. The fields of activity of both the sexes are entirely different, and each reigns supreme in his or her own sphere of life. In short, we want to avoid sex war in our country. It will also be necessary for the educated daughters of India to take a leading part in public affairs. Our society has been a solo till now; it should be a perfect duet henceforth. Complete harmony in our social and economic life can be achieved, provided there is a perfect balance between male and female instincts in our social organisations.

Western ideals are gradually influencing Indian ideals also. Eager lady students in schools and colleges are seeking after man-made ideals and civilisation. The West is gradually becoming conscious of the imperfection of the system. It is now being felt that this type of education, no doubt, led to a great advance in efficiency; but if new strength was gained, old and delicate graces were perhaps lost and the individuality of womanhood was in some respects sacrificed on the austere altar of sex equality.[1] At any rate, the ideals of Indian home-life should never be sacrificed. The influence of "a disintegrating West"[2] should be avoided. Family life is more or less disappearing from the West, where the number of homes is gradually diminishing with the consequent rise in the number of hotels. This should be a great warning to us also. But often western education is unnecessarily maligned to an excess. At times, it is alleged that it has produced society butterflies. This charge is often based on hasty observations. It should be realised as Mahatma Gnadhi has remarked, "All the girls, who receive English education, are not modern girls. I know many who are not at all touched by the modern girl spirit. But there are some, who have become modern girls." In fact, we owe a good deal to the West for the modern renaissance of women in our country. The West has not only supplied us with the key to open the vast treasure-house of our land, but has also filled our minds with new hopes and aspirations. The enfranchisement of women is mainly due to western influences.

The tasks before the future mothers of our country are really great. They alone can improve the tone of Indian homes and build up the social and national fabric of Indian life on a better foundation. The part they took in the freedom struggle during the present century is itself a proof of their growing emancipation and the fact that it came largely as a result of their own initiative entitles them to a fair share of the glory of that strife.

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[1] H. M. S. O. *Differentiation of Curricula*, etc., London, 1923. p. 13.

[2] Mayhew. op. cit. p. 100.

CHAPTER EIGHT

TECHNICAL EDUCATION

INTRODUCTION

At one time, India was noted for the superior quality of its science and technology. Mohenjodaro, for instance, provided good examples of our knowledge of town planning, civil engineering and architecture. Even earlier, the Rigveda spoke about canals and dams. When Alexander the Great invaded this country, among the things he took away were steel ingots, suggesting an era when India produced steel of fine quality. Later on, a blight seemed to have descended on the country.

But while India decayed, other countries progressed. For example, the U.S.A. was a country of primitive economy hardly a century back. Today the same country maintains millions with food to such an excess that maize is burnt down and milk is thrown into streams for maintaining a high price-level. The average life of an American is 72 years — twice that of an Indian. Not more than sixty years ago, even Japan was far behind India both in agriculture and industries. But during these sixty years while India made some progress, Japan built up her agriculture and manufacturing industries through a scientific organisation of her general and technical education. Great changes have also taken place in the U.S.S.R. during the last fifty years, and her seven-year plans have changed her from a backward agrarian country into an advanced industrial state.

Several causes have been at work in India to bring about a gradual decay in this country. In the first place, technical efficiency used at one time to be a matter of hereditary endowment; and at any rate in this country, one's birth determined one's profession as well. In the second place, the State except during the last twenty years never paid any serious attention to technical education. Till 1940 technicians were trained mainly for satisfying administrative needs. Moreover, the training of the hand has long been neglected in favour of that of the intellect and we have been accustomed to place technical education third in our educational values. We attached the greatest importance to university education and then to secondary education. Only after these two, came what we call technical education. Even in European countries, technical education was originally neglected. For example, Cardinal Newman propounded the view that the university education should be primarily non-vocational.

But this feeling is fast disappearing and the wave of enthusiasm in favour of technical education has been steadily rising in the country. This education is considered as essential for better earnings. Parents and students undergo great sacrifices and personal inconveniences for a degree or diploma in engineering because of the great opportunities it offers in life. In fact, India is today fully conscious of the importance of Machine, Movement and Energy — the three dominant forces that characterise twentieth century civilisation. The modern wars have also shown that victory depends more upon skill than courage and that workshops are ineffective without millions of trained hands. India is trying to rise to the occasion. She has fully realised that for the development of her vast material resources including her untapped mineral wealth, water power and agricultural potentialities, and for the nationalisation of her key industries, it is urgent to provide the greatest facilities for training up an army of technicians. The State as well as educationists are giving anxious thoughts to the organisation of technical education on a sound basis. Plans are being elaborated and reforms are being proposed with a view to adapting vocational education to the present and future needs of the country.

TECHNICAL EDUCATION UNDER THE BRITISH RULE

Technical education in India has grown under the pressure of necessity along various lines including industrial, engineering and technological training. This growth has been at two separate levels, one represented by colleges or universities and the other by schools. During the British rule, no comprehensive system of technical education was, however, developed as an integral part of the national sytem of education.[1] The growth of technical education can be conveniently divided into three main periods, viz., (1) 1800-1857, (2) 1857-1902, and (3) 1902-1947.

FIRST PERIOD (1800-57). — During the early period, some sporadic attempts were made to spread technical education. It was organised to satisfy administrative needs of the East India Company, which needed trained engineers, technicians and artisans for government jobs. Engineering colleges were established at Roorkee (1847), Calcutta (1857) and Madras (1858). An engineering class and a mechanical school were set up in Poona in 1854.

SECOND PERIOD (1857-1902). — The Wood's Despatch (1854), perhaps influenced by the creation of the Department of Arts and Science in England in 1853, stressed the importance of professional and vocational education. But the Government continued the *laissezfaire* policy of the previous period and established only such institutions as were needed for satisfying the needs of public administration. The Poona Engineering Class was, however, developed as a college in 1866, and the Victoria Jubilee Technical Institute, Bombay was founded in 1887 mainly through private efforts to provide courses of instruction suited to the requirements of growing Bombay mill industries.

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[1] *Progress of Education in India*, 1937-47, Vol. I. p. 171.

The East India Company was also indifferent to industrial education there were only three industrial schools during its regime. The Christian missionaries, however, established a number of industrial schools. But these institutions aimed at teaching some ordinary crafts like smithy or carpentry. In 1901-02, there were 80 technical or industrial schools with a total strength of 4,804 pupils.

THIRD PERIOD (1902-47). — During the last decade of the nineteenth century, there was an insistent demand for technical education in the country; and almost at every annual session, the Indian National Congress stressed the need for the promotion of technical education. The Government could not remain passive and began deputing a few selected candidates to U. K. and the U.S.A. for technical training.

But Indian opinion was not satisfied with a simple scheme of foreign training. In 1904 an organisation known as the "Association for the Advancement of Scientific and Industrial Education" was established in Calcutta, and it sent abroad a number of Indian students for advanced studies in arts and industries. In Bengal, the National Council of Education established the College of Engineering and Technology at Jadavpur. This institution started granting diplomas in mechanical and electrical engineering courses in 1908, and in chemical engineering in 1921. The most important institute for post-graduate studies in Engineering and Technology was established by Sir Jamshedji Tata at Bangalore in 1911. But the credit of organising degree classes in mechanical and electrical engineering and metallurgy for the first time in the country goes to the University of Banaras (1917).

For avoiding the need of going abroad, Indians began demanding the establishment of technological institutions also within the country. Between 1921 and 1937, a number of such institutions were set up, e.g., the Indian School of Mines, Dhanbad, the Harcourt Technological Institute, Kanpur and the School of Chemical Technology, Bombay.

Two factors, however, further popularised technical education. Firstly, the growth in the number of educated unemployed led to a greater attention being paid to the problems of practical and vocational education. Prejudices against industrial employment and technical education were also reduced to a great extent and many young men who would not otherwise have taken up a technical career rushed to vocational institutions. Secondly, the World War II produced a number of salutary effects. The British Government had to provide technical training required for war purposes, and technical training centres and factories were established in various parts of the country. In fact, every technical institution in the country became a centre for technical training.

The Government of India also realised that technical education could not be the concern of the provincial governments only and that it was necessary for the Centre to encourage and coordinate its development, and to promote research for the country as a whole. It was with that intention that the Government of India prepared one of the most comprehensive plans for the organisation of technical education on an all-India basis. The most important items are:

1. The creation of the Board of Scientific and Industrial Research in 1940 with the object of promoting industrial research.[1]

2. The establishment of the Delhi Polytechnic (1941).

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[1] *Infra.* p. 304.

3. The appointment of an *ad hoc* Committee (Sarkar Committee) in 1945 for advising on the provision of facilities for advanced technical education in India on the lines of the Massachusetts Institute of Technology. The Committee recommended that not less than four higher technical institutes — one in the North, one in the South, one in the East and one in the West — will be necessary to satisfy post-war requirements.

4. The establishment of the All-India Council for Technical Education by a Resolution of the Government of India (No. F. 16-10/4. E. 1 — II) on November 30, 1945)[1].

5. The appointment of the Scientific Man-Power Committee in March, 1947 for assessing the country's requirements for different grades of scientific and technical personnel during the next ten years and to recommend the steps to be taken to meet these requirements. According to the Committee's estimates, as many as 54,000 engineers and 20,000 technologists would be necessary for the period.

TECHNICAL EDUCATION IN FREE INDIA

INTRODUCTION. — In 1947 when India became free, there were in the country 38 institutions with a total admission capacity of 2,940 students per year for the degree course. There were also 53 polytechnics with a total admission capacity of, 3,670 students per year for the diploma courses.[2] With independence the realisation that upon technical manpower depends all material progress led to the formulation of plans for developing industry, irrigation, commerce, transport, communication, agriculture and numerous other nation building services. The First Five-Year Plan of Technical Education envisaged on the one hand, the optimum development of facilities for technical education at least upto the university first degree level in all regions of the country, and on the other the development of facilities for training in certain branches of engineering and technology for which no facilities exist in India.

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[1] *Infra*, pp. 291.

[2] S. N. Mukerji, ed. *Administration of Education in India*. Baroda, Acharya Book Depot, 1962. p. 234.

The Second Five-Year Plan provided for an outlay of Rs. 487 million on the development of technical education as against approximately Rs. 230 million in the First Plan. In the Third Plan the total provision for education is Rs. 560 crores and out of this Rs. 142 crores is for technical education which is about 25 per cent. At the Centre, out of the total plan outlay of Rs. 148 crores on educational programmes, Rs. 70 crores is for technical education which form sabout 17·3 per cent.

The main trends in development since independence can be discussed under following heads: (a) administration, (2) institutions, (3) rapid progress of technical education and (4) new projects.

ADMINISTRATION: *Central Government.* — Education is a State subject. It is, therefore the responsibility of the States to organise, develop and administer technical education and the training within their respective areas. At the same time, the Centre has to play a great role in the organisation of technical education since the progress of the country today depends on the development of technical education. The Centre has the following responsibilities:

1. to prepare an integrated plan of development of technical education for the country as a whole;
2. to establish higher technological institutions, institutions for specialised courses and other institutions of all-India importance;
3. to assist financially and otherwise state governments, universities and other agencies in the establishment of technical institutions;

4. to watch over the progress of technical education to ensure the maintenance of high standards.[1]

The Centre has to provide necessary educated leadership, and the Government of India is paying proper attention to this aspect of education. Till February 10, 1958, technical education and scientific research were in charge of a separate division in the Union Ministry of Education and Scientific Research. It is now looked after by the Ministry of Education. From time to time, the Government of India has also appointed a number of committees of technical experts for coordinating the development programmes of technical education in the country and for consolidating various technical programmes.

The All-India Council for Technical Education (AICTE). It is the most important body, advising the Central and State Governments on matters relating to the organisation and development of technical education in the country above the high school stage. It was set up in November, 1945.[2] It consists of representatives drawn from all interests concerned such as Parliament, Central Ministries, State Governments, Private Industry and Commerce, Labour, Professional bodies, Inter-University Board and so on. As it has representatives of so many interests, it is rather a large body of 60 members. For the day-to-day work of the Council, there is a small coordination committee representative of all the interests in the Council.

On the recommendations of the Council, four regional committees — Northern, Southern, Eastern and Western — have been established in different regions for supervising technical institutions and for coordinating the provision of technical facilities in their respective regions. The Council has also set up seven boards of technical studies, and with the assistance of these boards have prepared National Diploma and Certificate courses in the basic branches of civil, electrical and mechanical engineering, chemical engineering and technology, commerce and applied arts. Part-time courses for the benefit of employees in industry and technical departments of Government have also been designed. The Council also appointed expert committees to make recommendations on the curricula and syllabi for technical high schools.

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[1] L. S. Chandrakant. *Technical Education in India Today*. Delhi, Ministry of Scientific Research and Cultural Affairs, 1963. pp. 32-33.

[2] *Supra*. pp. 21-22.

The Council also recognised that the provision of facilities at the post-graduate level had been sadly neglected and they were, therefore, extremely limited both in the range of subjects covered and the number of institutions. It, therefore, endorsed the recommendation of the Sarkar Committee that four higher technological institutions should be established, one in each region, to meet the needs of high-grade technical personnel required for the implementation of various economic development schemes. Further, that each one of these institutions should make provision for post-graduate courses and advanced work and research in a variety of subjects for a large number of students. The Council also appointed a committee for preparing post-graduate courses in the various branches of engineering.

The Council normally meets once a year to discuss broad policies, problems and programmes, whereas the regional committees and coordinating committees meet more often.

THE STATE GOVERNMENT. — Till recently, the administrative set-up of technical education in many States was defective, as there was no single department entirely responsible for this branch of education. On the recommendations of the AICTE, every State has now set up a separate Directorate of Technical Education in the government and a State Board of Technical

Education. The constitution of the State Board is given below:

1. The State Minister of Education (Chairman);

2, 3, 4, 5. four representatives of the State Government Departments, viz., Industry, Labour, P.W.D. and Finance;

6, 7, 8. three principals of technical institutions.

9. a representative of labour;

10, 11, 12. three representatives of Industry and Commerce, nominated by Government;

13. a representative of the regional committee of the All-India Council for Technical Education;

14. a representative of the university;

15, 16. two experts either co-opted by the Board as a whole or nominated by Government; and

17. Director of Technical Education/Head of Technical Education Unit (Ex-officio Member and Secretary).

The above composition of the board may, however, be changed to suit the conditions obtaining in each state.[1]

INSTITUTIONS: *Introduction.* — Technical education in India is a four-tiered system comprising: (1) post-graduate courses and research, (2) first degree course, (3) diploma courses and (4) vocational or industrial training. Each tier is a self-contained aspect intended to serve a specific purpose and neither the diploma courses nor the industrial courses are a preparation for the new higher tier.

Post-graduate Courses.—Hardly five years ago, the post-graduate courses were more or less absent in this country. The AICTE, therefore, appointed a special committee for surveying the existing facilities. After taking into account the developmental programmes of the country necessitating training at the advanced level, the committee made its recommendations for further provision of such courses. In doing so, it considered the condition of each institution and praticularly the staff position.

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[1] Estimates Committee. *Technical Education, Part II*. Delhi, Lok Sabha Secretariat, 1958. p. 57.

On the recommendation of the committee, the AICTE approved the introduction of post-graduate courses in 34 selected institutions. These have been upgraded for the purpose and are receiving liberal grants. Among the subjects of particular importance are: Mining and Metallugy, Highway Engineering, Dam Canstruction and Irrigation Engineering, Soil Mechanics and Foundation Engineering, Production Technology, Chemical Engineeriug, Electrical Commuuication Engineering, Advanced Electronics, Geophysics. Petroleum Technology, etc.

Post-graduate degrees leading to a Master's degree or equivalent award are generally of one or two years' duration. The candidate has to specialise in one major branch, and has to write a dissertation on an approved topic. The research degree like the Ph.D. or D.Sc. is awarded on the basis of original research done by candidates at recognised centres. The normal period required is two or three years after a Master's degree.

Degree Course. — The duration of the first degree course is generally four years with the Intermediate in Science as the minimum admission qualification. A few technological institutions in the country, particularly in the western region have, however, prescribed a three-year curriculum (instead of four years) for the first degree, while some others have prescribed a four years' integrated degree with Preparatory Science or First Year Science or Higher Secondary as the minimum admission qualification. The first degree course provides training in the main fields of technology, viz., civil engineering, mechanical engineering, electrical engineering, electrical communication engineering, chemical engineering, mining, metallurgy, textile engineering, agricultural engineering, leather technology, architecture. Courses in instrument technology, automobile engineering and aeronauttical engineering are also offered by some institutions at the first degree or equivalent level.

However on account of the rapid progress made in recent years in the field of engineering and technology and further on account of the reorganisation of secondary education in the country, the All-India Council of Technical Education has recommended the replacement of the present 3 or 4 year courses in engineering and technology with a five year integrated degree course in the respective branches with Higher Secondary School Certificate as the minimum admission qualification. A number of universities and technical institutions in the country have already switched over to the five-year degree course, and many others are expected to switch over to the new course in the near future.

Diploma Courses. — Next to the first degree courses, diploma courses occupy an important position in technical education in India. These courses are conducted by a large number of institutions called polytechnics and are designed to train technicians who will eventually occupy supervisory positions like foremen, overseers, etc. in industry and other technical organisations. These are of three years' duration after high school education and have a practical bias. The diploma courses are offered in the main fields of civil, mechanical and electrical engineering. A few institutions also offer textile technology, leather technology, mining engineering and other fields according to regional requirements for technical personnel at this level. Vocational and industrial training is given through various types of technical and industrial schools.

A large number of diploma students, however, study in polytechnics. As a matter of established usage, the term 'polytechnic' represents in India today technical institutions that conduct diploma courses chiefly in civil, mechanical and electrical engineering. Quite recently, a few polytechnics have been established for girls also.[1]

Vocational And Industrial Training. — This training aims at turning out operatives, i.e., skilled or semi-skilled workers They are trained in two types of schools: (1) Arts and Craft schools, and (2) Technical and Industrial schools. The primary object of the first type of schools is to provide training in particular craft or minor cottage industries like weaving, dyeing and printing, carving, tanning, leather-work, metal-work, smithy, carpentry, pottery, cane-work, etc. The second type of institutions provide instruction in various trades and hand-work with a view to enabling youths to earn a living as skilled workers on the completion of their training. Industrial schools can be classified as (1) artisan classes intended for illiterate or primary school boys, and (2) the junior technical schools, a special type of secondary technical school, provides an integrated course of three years' duration after the middle stage for those students who want to enter industry and other technical occupations. It functions as a cross between a factory and a school, and the workshop constitutes over 55 per cent of the total programme. The new basic institutions are also expected to provide a large number of skilled workmen and technicians, since education in these institutions is craft-centred and the post-basic programmes include a number of technical and vocational courses.

RAPID PROGRESS OF TECHNICAL EDUCATION. — The most encouraging advance in the field of Indian education during the last decade has been in the field of technical education. Prior to 1947, the out-turn of our engineering and technological

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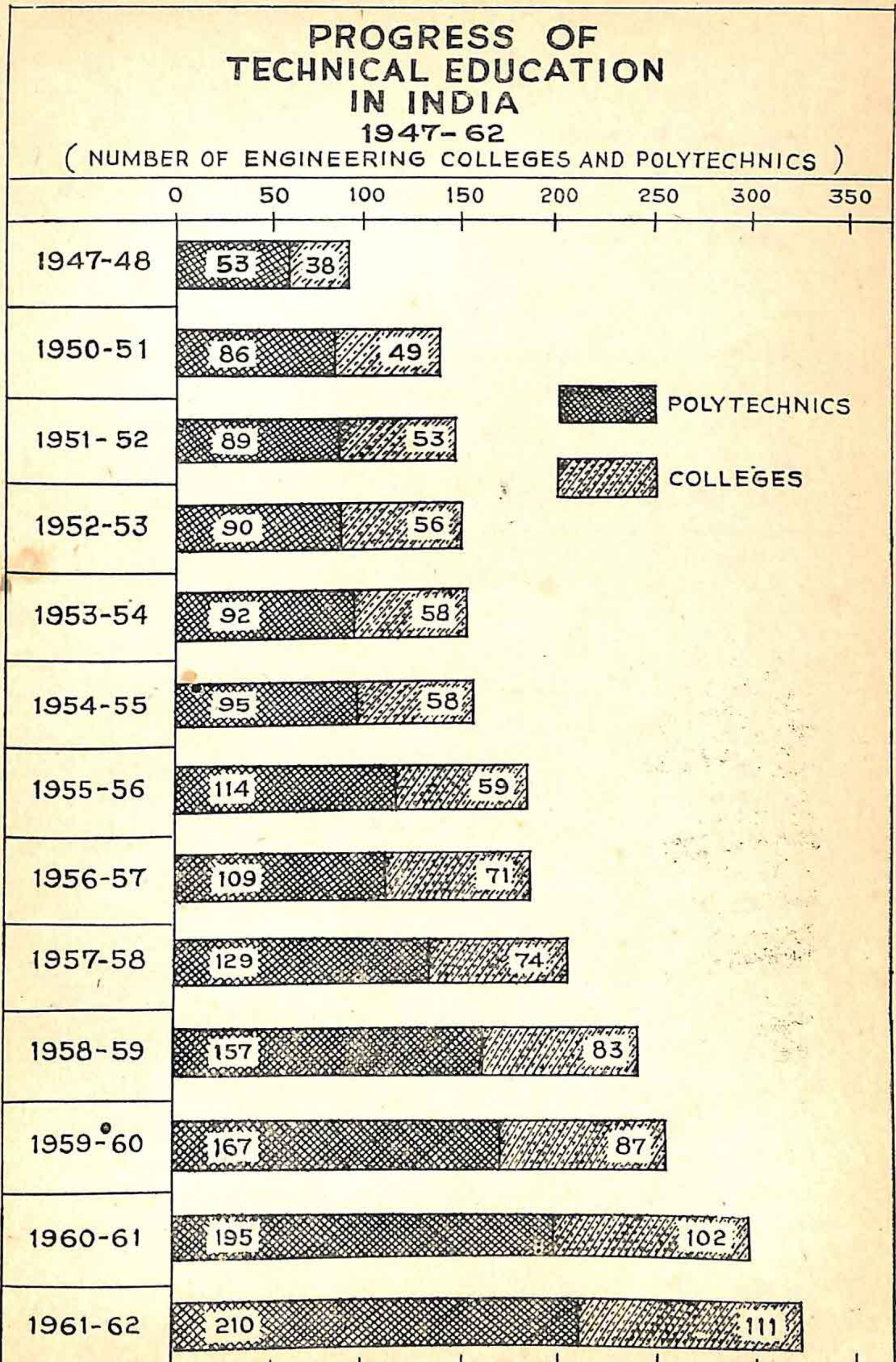
[1] *Supra.* p. 267.

ILLUSTRATION 8



institutions was inadequate and the facilities for advanced training and research at the post-graduate level were absent. As against 38 colleges and 53 diploma institutions for engineering and technology in 1947, India had 114 colleges and 231 diploma institutions in 1962.[1] The intake and out-turn of the institutions also increased considerably during the period.

Similarly as against an annual admission of 2,940 students for the first degree course and 3,670 students for diploma courses in 1947, there were 17,074 students for degree courses and 30,826 for diploma courses in 1962.

But this expansion is not considered sufficient to cope with the present situation. It is estimated that 51,000 additional engineering graduates are likely to be required for the Third Plan as compared to about 29,000 in the Second Plan; the demand in the Third Plan is estimated at about 80,000. Estimates for different branches of engineering are given in Table 48.

TABLE 48

Estimated Additional Requirements for Graduates in Engineering and Technology*

Branch	Second Plan	Third Plan	Fourth Plan
1. Civil Engineering ..	12,400	13,000	20,000
2. Mechanical Engineering ..	5,300	15,300	24,000
3. Electrical Engineering ..	5,600	10,500	17,000
4. Telecommunication Engineering	1,600	2,500	4,000
5. Chemical Engineering ..	2,300	3,500	7,000
6. Metallurgy ..	700	1,100	1,600
7. Mining ..	500	1,600	2,400
8. Others ..	1,000	3,500	4,000
Total ..	29,400	51,000	80,000

* Government of India. *Programmes of Educational Development* (1961-66). p. 51.

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[1] *India*. 1963. p. 74.

The additional requirements of diploma holders in engineering and technology in the Third Plan are estimated at about 100,000 as compared to about 56,000 in the Second Plan. Estimates for the Fourth Plan are at present placed at about 125,000. The break-up of the additions needed by different branches of engineering is shown in the following table:

TABLE 49*

Estimated Additional Requirements of Diploma Holders in Engineering and Technology.

Branch	Second Plan	Third Plan	Fourth Plan
1. Civil Engineering ..	29,000	39,000	48,000
2. Mechanical Engineering ..	12,200	26,000	33,500
3. Electrical Engineering ..	10,400	18,000	22,500
4. Telecommunication Engineering	600	600	300
5. Chemical Engineering ..	800	3,500	5,000
6. Metallurgy ..	200	1,100	1,300
7. Mining ..	600	4,000	5,000
8. Others ..	2,000	7,800	8,000
Total ..	55,800	100,000	125,000

* Government of India *Programmes of Educational Development* (1961-66). P. 50.

The new fields include branches like sugar technology, jute technology, leather technology, architecture, town-planning, automobile and marine engineering, public health and sanitation, and agricultural engineering.

In order to meet the requirements for technical personnel in the Third Five-Year Plan, the Central Government approved a scheme of setting up nine regional engineering colleges and twenty-seven polytechnics. The centres for the location of the colleges are: Warangal and Mangalore; Nagpur and

Bhopal; Durgapur and Jamshedpur; Allahabad, Delhi, and Srinagar. While the Delhi College is entirely a Central Government enterprise, all other colleges will be a joint enterprise of the Central Government and the state governments concerned.

The training of craftsmen is also receiving attention. It is roughly estimated that for the industrial and other programmes which are to be carried out during the Third Plan there will be the need for about 7,50,000 craftsmen in engineering trades and about 3,50,000 in non-engineering trades. There were 59 training centres for craftsmen in 1956 with training facilities for about 10,500. In 1961 there will be 152 industrial training centres with training facilities for 42,000, in addition to facilities established for the training of displaced persons. The programmes of expansion proposed for the Third Plan include the creation of additional training facilities for 55,000 under the scheme for craftsmen and 14,000 under the national apprenticeship scheme. The number of training institutes is expected to increase to about 250 by the end of the Third Plan. The total out-turn of craftsmen during the plan will be about 200,000. The scheme for the training of craftsmen in institutions also provides for in plant training for a period of six months. The Ministry of Labour and Employment envisages legislation for regulating training programmes in industry, including arrangements for apprenticeship. Under the evening classes scheme, it is proposed to expand facilities for imparting theoretical training to the industrial workers who are already engaged in jobs from about 3,000 to about 15,000 seats.

NEW PROJECTS. — During this period, the Government of India undertook several projects, the most important amongst them being: (1) expansion of the Indian Institute of Science, Bangalore; (2) establishment of higher technical institutions, (3) organization of new branches; (4) provision of scholarships and fellowships; (5) establishment of *vigyan mandirs;* and (6) scientific research.

Indian Institute of Science, Bangalore. — This institution, established in 1911, owes its inception to the princely donation of the Tata family. Since 1946, the Central Government is awarding generous grants to it. Perhaps the most important single contribution of the Institute has been the training of skilled personnel. Since its inception, over 4,000 personnel — physicists, chemists, engineers, metallurgists, etc. — have gone out of the Institute to take responsibilities as teachers and leaders in educational institutions, industry and government. In May 1958, it was raised into a university. The Institute is running the following courses:

1. Post-graduate courses in Automobile Engineering, Power Engineering (Electrical), Power Engineering (Mechanical), Foundry Engineering, Power Engineering (Civil & Hydraulics), High Voltage Engineering, Soil Mechanics and Foundation Engineering, Electronics Engineering, Acoustical Engineering, Line Communication Engineering, Ultrashort and Microwave Engineering, Aeronautical Engineering, and Internal Combustion Engineering.

2. Research Training in (a) Internal Combustion Engineering; (b) Hydraulic Machines; (c) Technical Gas Reactions; (d) Physical Metallurgy; (e) Radio and Electrical Communication Engineering.

Higher Technological Institutes. — On the recommendations of the Sarkar Committee the Government of India decided, as early as 1946, to establish four regional institutes for higher technical education. But practical difficulties caused delay, and the first institute known as the Indian Institute of Technology, Kharagpur (West Bengal), admitted the first batch of students only in 1951. Established by the Central Government on the lines of the Massachusetts Institute in the U.S.A., it has been designed to provide facilities of the highest order for training and research in engineering and technology.

The subjects offered cover a wide range as for instance, Naval, Architecture, Fuel and Combustion Engineering, Production Technology, Geophysics, Advanced Electrical Communication Engineering, Foundry Engineering, Concrete Technology, Agricultural Engineering, Architecture and Town Planning etc., which are all designed to meet the special requirements of industrial and other developmental projects for high grade technologists. The plan is to make provision for about 400 post-graudate students and research scholars eventually.

The other three higher technological institutes are in process of establishment at Bombay, Madras and Kanpur. The Bombay Institute started functioning in 1958, the Madras Institute in 1959, and the Kanpur Institute in 1960. All these institutes are being planned on the same comprehensive scale as the Kharagpur Institute, and when completed will take the technological education of the country several steps further. Each will be a fully residential institution designed to promote corporate life among students and teachers, and will provide facilities for about 1,600 students in the under-graduate courses and 400 students for post-graduate courses and research. While the nature and level of work of the insitutes is the same, each will pay particular attention to certain special fields of technology that are vital to the industrial development of the country. Dead uniformity and duplication will be avoided as far as possible, and each institute will be allowed to develop in directions best suited to its own resources and genius. All the four Higher Technological Institutes have been incorporated by an Act of Parliament as Institutions of National Importance.

New Branches. — On the recommendations of the All-India Council for Technical Education, particular attention is being given to the development of facilities in special fields as for instance, printing technology, town and country planning, business management, mining engineering, pharmacy, etc. Four regional schools of printing in Bombay, Madras, Calcutta and Allahabad have been established for the training of technicians much needed for the development of the printing industry in the country.

The School of Planning and Architecture, Delhi has been established as a central institution for providing facilities for post-graduate training in town and country planning. The school conducts two courses in the subject, viz., a post-graduate course of two years' duration leading to the diploma in town and country planning and an intensive course specially for the benefit of architects, engineers and others working in allied fields and possessing some practical experience in planning.

Scientific management is another field that has recently attracted considerable attention in India. Two all-India Institutes of Management have been established at Calcutta and Ahmedabad for post-graduate training in that field. Another institution is the Administrative Staff College, Hyderabad, which was established in 1957. It offers a 12-week course to young administrators for all walks of life in the principles and techniques of organisation, administration and leadership in civil life.

Scholarships. — Technical education is very expensive. On a very conservative estimate, every technical student has to spend today Rs. 150/- p.m. on an average on his fees, lodging and boarding. Realising this difficulty and with a view to attracting suitable students to the engineering profession, the Central Government formulated and implemented a scheme of Merit-cum-Means Scholarships for technical students. About 1,000 scholarships are offered each year. The value of each scholarship is Rs. 75/- p.m. for degree courses and Rs. 50/- p.m. for diploma courses, excluding tuition fees. In addition, the four Higher Technological Institutes as also the Regional Engineering Colleges have made provision for the award of scholarships to 25 per cent of their students.

For the development of post-graduate students, the AICTE has insisted right from the beginning that at least fifty per cent of the places in post-graduate courses should carry scholarships of the value of Rs. 150/- p.m. Over and above this scheme, eight hundred research scholarships, each of the value of Rs. 250/- p.m., have been instituted and allotted to different university departments and other institutions for research in science, engineering and technology. In 1955-56, a scheme of national research fellowships was introduced. According to this scheme, 80 fellowships, each of the value of Rs. 400 p.m., and a grant of Rs. 1,000 per year for apparatus and equipment are available.

Vigyan Mandirs. — Another important scheme is the establishment of *vigyan-mandirs* (temples of science) in co-operation with the Community Development Ministry. The *mandirs*, forty-eight in number at present, are equipped with a laboratory and manned by suitably qualified trained personnel. They disseminate scientific knowledge among the rural population and educate them on the potentialities of the methods of science as applied to their day-to-day life. The Indian Ministry of Education is aiming at raising this number to 320, so as to provide each district with one *vigyan mandir*. They will be attached wherever possible to higher secondary schools with a science course. A small cultural centre might also be provided at each *vigyan mandir*.

Research. — In view of the war requirements and of the growing research consciousness in the country, the Government of India set up a Board of Scientific and Industrial Research in 1940. The Council of Scientific and Industrial Research was established in 1942.

The functions assigned to the Council are: (1) the strengthening of the existing research institutions and establishing new ones; (2) the promotion, guidance and co-ordination of scientific and industrial research and the financing of specific research schemes; (3) the utilization of research for the development of industry; (4) the establishment and award of research studentships and fellowships; (5) the establishment, maintenance and management of laboratories, workshops, institutes and organizations for the promotion of scientific and industrial research; and (6) the collection and dissemination of information and the publication of scientific literature.[1]

The Council is at present administered by a governing body of 28 members with the Prime Minister as the President. Non-officials representing science, business and industry as well as the representatives of the Ministry of Finance are included in the governing body. In technical matters, the governing body is advised by two boards: (1) the Board of Scientific and Industrial Research, and (2) the Board of Engineering Research. The first body is assisted by twenty-four and the second by five sub-committees.

The activities of the Council are financed by the Central Government. In addition, the Council has received valuable gifts of land and buildings from State Governments for the establishment of research centres. Since the attainment of independence, as many as twenty-eight national laboratories and institutes have been established all over the country. These are: (1) National Chemical Laboratory, Poona; (2) National

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[1] Ministry of Information & Broadcasting. *Scientific Research*. Delhi, Manager of Publication, 1957. p. 6.

Physical Laboratory, New Delhi; (3) Central Fuel Research Institute, Jealgora (Bihar); (4) Central Glass and Ceramic Research Institute, Jadavpur; (5) Central Food Technological Research Institute, Mysore; (6) National Metallurgical Laboratory, Jamshedpur; (7) Central Drug Research Institute, Lucknow; (8) Central Road Research Institute, New Delhi; (9) Central Electro-Chemical Research Institute, Karaikudi (Madras); (10) Central Leather Research Institute, Madras; (11) Central Building Research Institute, Roorkee; (12) Central Electronics Engineering Research Institute, Pilani (Rajasthan); (13) National Botanical Gardens, Lucknow; (14) Central Salt Research Institute, Bhavnagar; (15) Central Mining Research Station, Dhanbad; (16) Regional Research Laboratory, Hyderabad; (17) Indian Institute for Biochemistry & Experimental Medicine, Calcutta, (18) Birla Industrial & Technological Museum, Calcutta (19) Regional Research Laboratory, Jammu-Tawi (Jammu & Kashmir); (20) Central Mechanical Engineering Research Institute, Durgapur (W. Bengal); (21) Central Public Health Engineering Research Institute, Nagpur, (22) National Aeronautical Laboratory, Bangalore; (23) Regional Research Laboratory, Jorhat; (24) Central Indian Medicinal Plants Organisation, New Delhi; (25) Central Scientific Instruments Organisation, New Delhi; (26) Indian Institute of Petroleum, Dehra Dun; (27) National Geophysical Research Institute, Hyderabad; (28) Visvesvaraya Industrial and Technological Museum, Bangalore.[1] The Council has also set up a Rain and Cloud Physics Research Unit at New Delhi, and has also taken over the work of the National Committee on Oceanic Research.

The Government of India is also sponsoring research through a liberal system of grant-in-aid to other research laboratories and universities, which enable them to pursue fundamental and applied research and develop their own special fields. There are, at present, more than 495 such schemes in progress. Apart from the practical results achieved, the schemes provide opportunities of training for young research workers and the development of active centres of independent research work.

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[1] *India*. 1963, pp. 87-89.

MAIN PROBLEMS

INTRODUCTION. — It is clear from what we have seen earlier that, before independence, very little attention was given to technical education and India's industrial development was controlled by dominant needs of British industries. It is no wonder, therefore, that after two hundred years of British rule, India had not been able to produce a locomotive engine or even a needle. Higher production was never encouraged, heavy industries were neglected and there was nothing but retail trade in foreign manufactured articles.

All this has been changing since India became free. Today, the Government and the people recognize the vital role which technical education can play in stepping up production and increasing our standard of living. We are almost coming to the end of the Third Plan period. Sufficient stress has been laid during this period on basic and heavy industries, so as to increase the country's productive potential. Tremendous activity is also going on in the sphere of technical education and industrial research in the country. This is not only a landmark in the history of industrial development, but represents the first systematic and planned effort to apply science and technology to the development of our national industries.

Technical education and industrial development in India are faced with following problems today: (1) the need for technical manpower; (2) demand for new institutions; (3) lack of technicians at lower and middle levels; (4) dearth of administrative staff; (5) narrow courses; (6) medium of instruction;

(7) paucity of teachers; (8) inadequate provision of workshop practice; (9) after-school education; (10) research and (11) cooperation of State, Industry and Technical Education.

THE NEED FOR TECHNICAL MAN-POWER—The problem of training technical manpower involves the mobilisation of resources to ensure, firstly, that the requirements for national development are adequately met at all levels and in all sections of industry; secondly, that over the whole country technical education is raised to, and maintained at, the highest possible standard; and thirdly, that such education is qualitatively and quantitatively in balance with technological education. In the context of rapid industrialisation, the first requirement tends to dominate others, but it is well to remember that it is almost impossible to make shortcuts in education and that quality can be sacrificed only at great peril. It should also be realised that technical education should not be extremely specialised in character, except in its advanced stages, but should aim at imparting a sound knowledge of fundamental principles which are applicable to different tasks, and at as high a degree as possible of skill in thus applying it.

The expansion of technical education in India should, however, be done with caution and with full regard to the development of organised industries. As Messrs Abbott and Wood have warned:

> It would be a great misfortune if a large body of men received a prolonged technical training, and on its completion found that they had no opportunities of using the knowledge they had acquired.[1]

It is indeed true that much has been done in the last fifteen years to increase the facilities for technical education and to estimate the needs of technical personnel. But Government has woefully failed so far to match demand with supply. The paradox of acute technical man-power shortage in certain industries together with surplus technical staff in others continues to stare the country in the face. At the same time, if the economy does not expand at the expected rate, the problem of unemployed technicians will become even more acute than it is today.

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[1] *Abbott-Wood Report*. p. 38.

The Chinese crisis has brought to light grievous deficiencies not only in our defence organisation but in our system of engineering education. As things stand today, our engineering colleges turn out graduates, who can do routine jobs only. For major undertakings, we have to look to outsiders to solve our problems. We must have a pattern of engineering education, which should produce all the high class engineers and scientists we need to man our design organisations and consulting services. This cannot be achieved unless our engineering colleges put a new emphasis on quality. Because we require a large number of engineers, we need not introduce the 'condensed' course. There cannot be a short-cut to learning and that too in a technical field.

DEMAND FOR NEW INSTITUTIONS. — On the basis of the standard fixed by the All-India Council, an engineering college with an admission capacity of 120 students for civil, mechanical and electrical, costs today over Rs. 4·5 million for building and equipment alone and Rs. 0·8 million for running expenditure, and that of a polytechnic Rs. 2·0 million for buildings and equipment and Rs. 300,000 recurring expenditure. It has then to be reckoned that the cost of technical education in India is rising sharply and this rising cost acts as an obstacle in the expansion of institutions both in quality and quantity. The problem of finding out finance for expansion of technical and scientific education thus poses a challenge to the Finance Minister as he has to release funds from the limited common exchequer.

DEMAND FOR NEW COLLEGES.—It has been pointed out that inspite of the rapid progress in technical education, during the last ten years, the contemplated increase in training facilities will not be adequate to meet the damand for trained personnel. This has prompted the AICTE to draw plans for setting up nine large sized engineering colleges and twenty-seven polytechnics.[1] In future, the Government will rely on large technological institutes, comparatively limited in number, which will not only have a big intake but will also be more diversified in scope. Whereas the existing colleges or institutions specialise in particular branches of engineering, the new institutes will embrace practically the whole gamut of modern engineering. Laboratory and workshop facilities will therefore, be, necessary on correspondingly larger scales.

LACK OF TECHNICIANS AT LOWER AND MIDDLE LEVELS.—There is a fair rate of progress in the training of technicians at lower and middle levels, but these fields need greater attention since trained workers are needed in industrial concerns in the interests of increased efficiency. It is not too much to hope, therefore, that in the years to come more factories will start training schools for their workers and that such schools will indeed become as common a feature as they are in other industrially advanced countries. Even so industries would still like to recruit persons, who are already trained in the different technical trades. The growth of small-scale industries has also increased the demand for technically qualified persons at the lower and middle levels. Unfortunately, this aspect of technical education has not been given the attention it deserves. The educational authorities seem to think that all that industry requires is supervisory cadres manned by graduates and diploma-holders. In fact it is far more necessary to start technical and trade schools to train the young boys who come out of the upper primary and lower secondary schools than to start colleges and higher technological institutes. It is time something was done to make good this deficiency.

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[1] *Supra*. p. 298.

DEARTH OF ADMINISTRATIVE STAFF.—Since independence, a significant change is taking place in the whole field of national activity. Government in the past was concerned mainly with the collection of taxes for the maintenance of law and order, other functions were geared to these over-riding functions. Today the Government is concerned with the prosperity and welfare of the people as a whole, and its activities are becoming more closely woven into the warp and woof of the daily life of the people.

Of the eight categories of administrative tasks listed by the Planning Commission, the following are of direct concern to technical persons individually and collectively: building up technical cadres; organising large-scale technical programmes in all fields and mobilising the training resources; carrying technical aids to those engaged in agriculture, and rural and small industries; organising efficient management in industrial undertakings, transport services, river valley schemes and other enterprises; strengthening co-operative economy through assistance in managerial and technical personnel; and establishment of marketing and other institutions.

It is hardly necessary to enlarge on the importance or the requirements of these administrative tasks. They are important in the interests of the technical persons themselves and in the interests of economic progress. The strength of technologists and technicians is rapidly increasing and their activities, whether they are grouped according to specialisations, regions, or service in government and private industry, call for high level co-ordination and direction, and a special type of technological administrator with experience in finance, economics, humanities, and national and international affairs.

The Central and State Governments have planned a number of big projects, and some of them have already been put into action. But the country is feeling a dearth of first-rate technicians with an adequate knowledge of finance and business administration. For organising large factories or hydro-electric schemes, a person who is a technician, a scientist and a capable administrator is the ideal head. But such persons are rare in our country. The British rule has crushed the power of initiative and administrative capacity of our technicians and scientists. It is, however, hoped that the existing small and medium-sized industries and economic undertakings will provide the necessary training ground to the executives.

At the same time a large part of planning and designing, whether of roads or bridges, of sewerage or drainage, of water-works or electric supply, is done by foreign firms even at present, and that too at a very heavy cost. All machines, whether for factories or for transportation, are imported. Unless our scientists and engineers are able to act as consultants and originators for the designs of great engineering projects, machines and equipment, we will have to depend on foreign countries for a very long period.

NARROW COURSES. — Till recently, technical education was looked down upon, as it was felt that technical training was meant for manual labourers and inferior students. In fact, technical education suffered a good deal in the past for want of a tradition, as it cannot trace its growth from a respectable origin like a university or a secondary school. But modern civilisation dominated by power-machine industry has completely revolutionised the conception of technical education. The growth of mechanisation and mass-production has completely altered the whole economic structure of the world.

It should be realised that an engineer is a professional worker and no doubt his proficiency should be in the technology, yet he is a man first, and technician next. Being a professional man working not in isolation but in society, his actions culminate in socio-economic consequences. Particularly, in an underdeveloped country like India he is instrumental in the creation of a new socio-economic and cultural order — he is leader of this community. To enable him to discharge his duties efficiently, apart from professional competency he must have a clear understanding of himself and of the social, economic and cultural values of the society in which he is a member. The technical students in India should be taught in social sciences and humanities. Such a study prepares an engineer to make a critical analysis of any technical problem, involving socio-economic consequence, in a broader vision and thereby add to his professional competency. Under the circumstances, technical education should not only be accompanied by but even based on the structure of general education. As Messrs Abbott and Wood have remarked:

> General and vocational education are not essentially different branches, but the earlier and later phases of a continuous process.[1]

At the same time, the adjustment to changing techniques of industrial productivity demands not only progressively high standards of technical knowledge, but also a new outlook which gives one an insight into the social purpose of work and an understanding of human relationships and human personality. The technical courses should, therefore, be widened to cover a wide field of liberal studies, viz., General Education.[2] This has been fully realised in the U.S.A., and General Education parallels technical training in the professional schools. This education as the President's Commission on Higher Ecucation in the U.S.A. remarks

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[1] *Abbott-Wood Report.* p. 40.

[2] *Supra.* pp. 233-36.

> should contribute to vocational competence by providing the breadth of view and perspective that make the individual a more effective worker and a more intelligent member of a society of free men.[1]

But it will not be possible to introduce these changes, unless the degree courses are reorganized. The AICTE in March 24, 1957 decided that in the best interests of reorganisation of technical education on right lines and maintenance of proper standards, a five-year integrated course should be adopted for the first degree in engineering and technology after the higher secondary stage. In arriving at this decision, the Council had before it the recommendations of the joint committee of the Inter-University Board and the All-India Council for Technical Education. The adoption of the integrated course involves provision of some additional instructional facilities in the engineering colleges and a revision of the syllabi and curricula of existing courses. The boards of technical studies of the All-India Council have been asked to work out the necessary details for the guidance of the institutions.

There is also an urgent need for increasing the efficiency of labourers, as modern industries need workers with intelligence and sufficient knowledge to understand their increasing complexities of manufacturing problems. As such, even an ordinary labourer should have some general education. The inefficiency of the skilled and semi-skilled labour is also coming in the way of adequate production in the country. The majority of workers are illiterate and are practically raw when they join work. Under modern conditions, we cannot think of illiterate labourers. With the increase of senior basic and junior technical schools, as outlined by the Second and Third Five-Year plans, the artisans and labourers of tomorrow will receive the necessary cultural and technical background which they so badly require. And thus a long felt need of the country will be removed. After all, labourers with a broad outlook on life are the greatest asset to a nation in the present world of scientific production.

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[1] President's Commission on Higher Education. *Higher Education for American Democracy*, Vol. I. New York, Harper, 1946. p. 61.

MEDIUM OF INSTRUCTION. — While addressing the State Education Ministers on September 2, 1956 Shri Nehru said that it was absolutely clear to him that the scientific and technological training had to be given in English. As things are today, he was probably right. But the question is not what Government is forced to do today but what are its intentions for tomorrow or day after. If the change to a new medium of technical education is postponed indefinitely, then the teaching of all the sciences, too, will have to be in English for an indefinite period. And what is true of the sciences also applies to many of the arts. As such it will be necessary to make a switch over to the regional languages as early as possible.

But English should continue as a compulsory language in the curricula of both technical schools and universities, and attempts should be made to provide adequate literature in technical subjects in Indian languages. It should be realised that in eastern countries like China and Japan, technical education is provided through the native languages, but an increasing emphasis is put on the study of foreign languages particularly English and Russian.

PAUCITY OF TEACHERS. — In 1959-60 the number of sanctioned posts of teachers in engineering and technological institutions at the degree and diploma levels was 2,849 and 3,178 respectively, and the over-all shortage for the engineering college and polytechnic teaching personnel was 24·5 and 25·3 per cent respectively.[1] Thus there is a grave concern over the shortage of teachers, which is mainly due to a large demand for technical personnel in the country. In addition, there is a shyness for the technical scholars to move on to the teaching profession. This is the result of many socio-economic factors. Apart from the fact that for technical scholars, industries throw open ample lucrative openings with better service conditions than the educational institutions, teaching is considered in India as a job of second importance, socially, economically and culturally.

The notion that an engineer in a factory is more productive and more important than a lecturer in an engineering institution, however baseless it may be, still prevails in India. Such being the case competent scholar-technicians shudder to enter into teaching profession; with the result that it is the fresh graduates and post-graduates, generally not good at teaching who creep into the educational institutions. Teaching is not a mechanical process, it requires a man of character, dynamic talent and imagination.

This defect has to be rectified lest the whole superstructure of technical education will collapse due to shortage of competent scholarly teachers. Firstly, the salary and service conditions of teachers should be improved and moreover the importance of the role of a teacher in the nation-building should be socially recognised. This will ensure mobility of academically qualified and professionally experienced staff to the teaching profession.

INADEQUATE PROVISION OF WORKSHOP PRACTICE.—Technical education in India is also suffering for want of a proper workshop practice along with academic study in schools and colleges. It may be noted that while other branches of learning can be closed within the four walls of an educational institution, technical instruction can never be restricted to a classroom. The institution with its workshop and laboratory is, no doubt, the main centre of instruction, but real practical experience can be given in outside workshops, factories and farms only. Efficiency in technical training largely depends on a proper co-ordination of these two scenes of action. As such practical training and apprentice schemes should be properly organised and co-ordinated with education at workshops, schools and technical colleges. The Central and State Governments can spare some of their productive units for such purposes, and should see that technical institutions get adequate facilities for such a type of work.

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[1] Government of India. *Programmes of Educational Development* (Third Plan). *op. cit.* p. 59.

Active cooperation of the private sector should also be sought for providing workshop practice. Without incurring much expenditure, the industrial concerns (both private and public) could open practical training departments in their industrial plants or conduct technical training programmes like "Blitz Training of Scandinavian models". The cost so incurred by the individual units for training their workers will be automatically compensated by the increase in the efficacy attained by the workers through such training in the long run. Therefore, such practical training is beneficial to the workers to the industrial units and more so it is vital for the economic growth of the community as a whole.

Further, by introducing economy measures in the administration, it will be possible to eliminate waste to make maximum use of outlays and bring down the cost of technical education without sacrificing the quality. For example, if an institution can be made to work for longer hours and train larger number of students in a system of shift arrangements, waste of idleness of tools, equipments and machinery in the laboratory and workshop, which are otherwise there, could be avoided to a considerable extent.

To circumvent the difficulty in the way of getting foreign exchange allocation for import of laboratory and workshop equipments, it may be worthwhile to make these equipments and tools as far as possible indigenously and thereby conserve the foreign exchange. Although we have been receiving so far foreign assistance in the form of equipments and experts from friendly countries like USA and USSR how far and to what extent can we look to others for equipping and staffing our institutions? Our aim should be to achieve self-sufficiency in producing essential equipments and tools of quality and precision.

Arrangements are also necessary for giving non-stipendiary students some working experience in part-time paid jobs in industrial concerns. In order to provide this realistic experience, a number of technical institutions in the U.S.A. organise co-operative work programmes. This type of curriculum includes alternation of regularly instructional periods in the school and supervised periods of employment in business or industry with definite provision for integrating work experience into the total education of the student. Such an arrangement has several advantages. As Ward says:

> Institutions are able to accommodate more students without increasing their staff and plant...Students in these programmes display increased interest in school work and in supplementary training. This training is more practical because the students must have uptodate job training in order to solve their problems on the job...Students like co-operative training because of the benefits which they realise, such as financial assistance afforded by the job, greater academic achievement, more effective job preparation, and better employment opportunities.[1]

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[1] P. Ward. *Terminal Education in the Junior College.* New York, Harper, 1947. p. 82.

AFTER-SCHOOL EDUCATION. — Indian industries are greatly handicapped for want of after-school education. A technician, whose education ends with his school or college career, gets out of date within a short period. He should continue his studies while he earns. This is absolutely necessary, because a technician's prospects depend upon his knowledge, which should be perfect as well as up to date. In short, the saying "learning never ends" has a great significance so far as technical education is concerned. There are today 56 universities in India with more than 110 institutions imparting full-time instruction in technical branches for degree courses. Few of the institutions provide training on part-time basis. Employees in industrial and commercial houses with necessary aptitudes and seeking further education have little or no opportunity to improve their skill and prospects. Even the institutions running diploma courses do not always provide facilities for part-time studies.

The organisation of part-time classes either during the day or in the evening is absolutely necessary on a very large scale for such workers. They can join these institutions during their spare hours while they earn. The bulk of the part-time instruction should be given in evening classes; the day workers should be relieved by their employers for one or two half-days in a week. The part-time classes should concentrate their attention primarily on theoretical instruction, and the students can acquire manual skill during ordinary course of employment. Refresher courses may also be organised for instructors, supervisors and even executive heads from time to time.

There is another aspect of the problem, as our workers are to be trained to make a worthy use of their leisure. A worker can do better, provided he recoups his energies at regular intervals. Education for leisure thus plays an important part in improving the general efficiency of labourers. It develops the whole personality of a man as a producer. But unfortunately even our best industrial concerns have neglected this important feature of modern education. A few sporadic attempts have, no doubt, been made; some factories have organised classes for giving their workers a rudimentary knowledge of the three R's but these attempts are more or less haphazard. Strikes of labourers for increasing their wages are quite common in this country, but even our labour leaders have not paid the slightest attention to improving the living standard of workers. Most of the labourers seek relief in wine-shops, as soon as their day's work is over. Better wages have not improved their mode of living to the slightest extent, and nothing has been done practically to increase their efficiency as workers and citizens. The conception of modern polytechnics with their halls, reading-rooms, swimming pools, theatres, games and dramatics appears to be a distant dream in this country.

After-school education for workers is an essential programme of all the advanced countries. For example, the cardinal task of making all workers and peasants educated and cultured is being successfully carried out in the USSR. Compulsory secondary education is being introduced, and an extensive network of evening schools and correspondence courses has been set up for workers in industry, transport and agriculture. The labour reserve schools are very popular with the young people.

Every year round about 1,200,000 workers attend schools or courses maintained by the industrial ministries or are trained individually or in groups directly on the job, and over 2,000,000 acquire a higher qualification. Allotments for the purpose by the Soviet Government are about 2,000 million roubles annually.

RESEARCH. — There is an urgent need for concentrating attention on industrial research work, which is still in its infancy in this country. Most of the advanced nations attach a great importance to such a type of work, which has contributed to their national development.

The U. S. Government currently spends somewhat more than 2·8 per cent. of the gross National Product on research and development and testing of new defence equipment. The USSR national budget on research in 1959 was 20 billion roubles, representing 2·8 per cent of the total national budget. China spent in 1960 on industrial and scientific research and technical development about 1·54 per cent of the total national budget: The U. K. Government in 1939 spent on scientific research £ 3·5 million; the current figure is £ 45 million, representing a four fold increase in real terms As against these figures, the current level of research and development expenditure in our country is some 0·2 per cent of the Gross National Product.[1]

During recent years, India has established a network of national laboratories and institutes in various parts of the country. But the field of technical and industrial research is so vast and the problems awaiting investigation are so many that the present rate of progress in technological research must be considered tardy. In a country like India, which has to withstand an evergrowing competition from foreign markets, it is high time we rationalised our industry and followed scientific methods of production in the interest of country's economy. For the modern machinery to be installed in industry, we have to depend today entirely upon foreign machinery which cost us much more than that if we had manufactured them. Transport and packing charges further enhance the cost. The time factor in getting them to our premises is another unhappy matter. It is, therefore, essential that our scientists, technologists, and engineers do co-operate and put in their best efforts to enchance production, to control quality, to reduce the cost, and thus to do away with foreign machinery.

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[1] D. S. Kothari. 'Higher Education — How to Improve Quality' — *The Times of India*, November 8, 1963.

This shows the urgent need for improving and concentrating our attention on industrial research. Its principal objectives should be: (1) to improve the quality of products; (2) to develop new materials, processes, or devices for existing or new markets; (3) develop new uses for existing materials, processes or devices; (4) to effect savings in cost; (5) to abate dangers or nuisances; (6) to prevent or cure troubles of production or use; (7) to assist in standardisation; and (8) to improve customer and public relations. The following items may be listed as integral parts of full-scale industrial research programme of our country:

1. Engineering, production, and evaluation of electrical and mechanical devices;
2. Design, construction, operation and evaluation of products of pilot plants;
3. Application of research on new devices; and
4. Market research and evaluation.

But we can have more researches, only when there are more men to do it. In the U.S.A. the number of professional qualified scientists and engineers constitute about 1·5 per cent of the population. In our country, it will be necessary to associate technical and scientific teachers with research aptitude with the industrial concerns both in private and public sectors in their research work. What is needed is co-operation between technical institutions and industrial units in research leading to inventions and innovations. We can also entrust the universities with a number of research projects. In fact, the universities should be considered as the pace-makers for scientific research and technological progress. In words of Sir Eric Ashby, 'Wars today are won not on the play fields of public schools, but in the university laboratories. A physical laboratory is a better strategic asset than a battle-ship."

CO-OPERATION OF STATE, INDUSTRY AND TECHNICAL EDUCATION.— There is another peculiar characteristic of technical education. While an ordinary school can stand independently on its own legs, a technical school is a product of its own environment; the economic needs of a locality lead to the establishment of the school, and the institution in return tries to satisfy local demands through the proper supply of an adequately trained personnel. But the aims and volume of instruction to be provided for any particular branch of industry should be carefully defined. As Lord Eustace Percy has observed, "We have to inform industry of the structure of education as it exists, indicating the reforms we are endeavouring to carry out and the objects we are seeking to attain; and we have to devise new machinery for working out plans for further development in harmony with the requirements of trade and industry." At the same time, technical education is not a matter for educational institutions alone, as the entire co-operation of industrial organisations with technical institutes is necessary, if the instruction provided in technical schools and colleges is to be adequate and appropriate. Thus industry and technical education can no longer be considered to be two separate entities. A common alignment between both of them is very necessary.

There is another aspect of the problem. Expansion of technical education should be begun with caution and with full regard to the development of organised industries. The Central and State Governments should make a full survey of educational needs of industries and commerce and then determine the stages to which each type should be carried out and especially the number of recruits that can be annually absorbed. Thus the State, industry and education are faced with a common problem today, and their cooperation is absolutely necessary for upgrading India's production to the maximum or to that of advanced countries like the U.S.A., England, Russia, Germany and many others.

CONCLUSION

These are some of the suggestions for tackling the main problems of technical education in this country. Whatever may be our future system or scheme, it must not lag behind time. In this rapidly changing age, it should learn to adapt itself to the prevailing circumstances. It must aim at producing better workers and happier citizens, and ought to make the life of Indian masses more secure and comfortable.

But our programmes of technical development should not ignore the human values, which we are at present concerned to preserve. Technology in the true sense of the word, i.e., as an aid to man, serving his needs, is not necessarily diametrically opposed to his spiritual life. The machine should be complementary to man. Technology should be regarded as an intellectual phenomenon, simply as the outcome of man's struggle for a higher level of civilization. It is only by recognizing this higher function of technology that a nation will be able to enter on the credit side of its balance sheet the supreme value of humanity, the finest fruit of the human spirit, where it will act as a corrective, as a harmonizing feature in its programme.

CHAPTER NINE

TEACHER EDUCATION

THE BACKGROUND

INTRODUCTION.—Teaching is the largest of all professions. Approximately seventeen lakhs of persons are engaged in this field in India today. Teachers play an important role in the drama of life, not merely because of their large numbers but also because they work with pupils of all ages.

The education of teachers is of recent origin in this country, and training institutions have come into existence since the beginning of the last century. It has undergone three not too well-marked stages of development: (1) pupil-teacher system, (2) teacher training and (3) teacher education.

PUPIL-TEACHER SYSTEM. — This particular period embraces the years between 1801 and 1882, when there was almost no interest in teacher education *per se*. Training associations or institutions sprang up here and there to meet the need of elementary teachers, and were established mainly by private organisations.

The method of training teachers prevalent in indigenous schools at the beginning of the nineteenth century was what has come to be known as the 'monitorial system'. It consisted in dividing a school or a class into a number of homogenous groups—each group consisting of young pupils kept in charge of a monitor or an advanced student. It was the duty of the monitor to give lessons to his group, assist the pupils in learning and to report their behaviours and progress to the teacher.

Dr. Andrew Bell, the first Superintendent of the Madras Military Asylum, adopted this system in his institution (1787) and later on advocated the introduction of the same system in a book entitled 'An Experiment in Education made at the Male Asylum at Madras'. The book attracted the attention of British educationists and the suggested system was adopted in England. It was the chief method by which Britain achieved expansion of primary education at a very low cost between 1801 and 1845. What were known as the Madras, Lancastrian, Pestolozzian, Glassgow, monitorial and pupil-teacher system in that country grew out of the Indian indigenous system.[1]

Thus an inexpensive system of solving the teacher problem existed in India since times immemorial. Institutions for training teachers were first started in the country by the Danish missionaries,[2] and a normal school was set up at Serampore by Carey. Later on, educational societies organised in Bombay, Madras and Calcutta appreciating the need for training teachers established some centres for this purpose.

In Bombay, the Native Education Society trained a batch of 24 selected organisers and sent them to its different regions for improving primary education. On the suggestions of Sir Thomas Munro, a central school for the education of teachers was set up in Madras in 1826. In Bengal, the Calcutta School Society established in 1819 took early steps to train teachers on the Lancastrian System. In 1825, the Court of Directors awarded the Society a monthly grant of Rs. 500/-.[3] The

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[1] S. Satthianadhan. *History of Education in the Madras Presidency*. Madras, Varadachari & Co., 1894. p. CXV.

[2] T. N. Siqueira. *The Education of India*. Bombay, O.U.P., 1951. p. 23.

[3] A. N. Basu, ed. "Fishers' Memoirs", *Indian Education in Parliamentary Papers*. op. cit. p. 88.

Calcutta Ladies' Society also organised a training class for lady teachers in the Calcutta Central School of Girls.[1]

Besides these private schools, a few government institutions for training teachers were established. For example, normal classes were attached to the Elphinstone Institution, Poona Sanskrit School and Surat English School in the Bombay Province. A normal school was started in Calcutta in 1849, and three similar institutions were set up in Bengal in the next decade. In the N. W. Provinces, normal schools were founded at Agra, Meerut and Banaras in 1852, 1856 and 1857 respectively.

The Wood's Despatch of 1854 stressed the training of teachers and desired "to see the establishment with as little delay as possible, of training schools and classes for masters in each presidency in India."[2] But nothing much was done, and the Stanley's Despatch of 1859 observed, "The institution of training schools does not seem to have been carried out to the extent contemplated by Court of Directors."[3] The new grant-in-aid rules, framed after 1859, often provided a salary grant to schools only for those teachers who had obtained a certificate of teacher training. As a result of these measures, the training of teachers received an increased attention. In 1881-82, there were 106 normal schools with 3,886 pupil-teachers and the annual expenditure was four lakh of rupees.

It should be realised that these training institutions were established in order to prepare teachers for elementary schools. On account of the prevailing low salaries, the persons who entered the professon of primary teachers at this period were those who had completed the primary school only. Students were admitted in training schools on the basis of their elementary school record. The duration of the training course varied from province to province. The curriculum contained very little of what is now considered professional education and aimed at imparting a knowledge of subject-matter which the teachers needed for teaching their pupils. Originally the teachers were trained on the Lancastrain lines. Later on, a system of apprenticeship by attaching pupil teachers to an experienced teacher for a fixed period was evolved. For example, the First Director of Public Instruction, Bombay laid down:

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[1] J. A. Richie. *Selections from Educational Records, Vol. II.* p. 38.

[2] *Wood's Despatch.* para 67.

[3] *Stanley's Despatch.* para 44.

> ...selected youths in each *taluka* should be apprenticed as pupil teachers for three years, on stipends from Rs. 3 to Rs. 5 per mensem, to the ablest school masters in the neighbourhood, and then on successfully passing through their term of apprenticeship, they should be sent up for a further course of instruction on stipends of Rs. 6 per mensem to the District Training College from which they should eventually return to their respective *talukas* as trained teachers.

Another notable feature of the period was the establishment of normal schools for women teachers. This was mainly due to the efforts of Miss Mary Carpenter, the well-known British educationist and who paid several visits to India during this period. By 1881-82, India had 15 normal schools for women. It is interesting to note that these institutions did not prescribe any specific admission requirements. As educated women were not available, even illiterate candidates were admitted provided they were intelligent and were willing to work as teachers.

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[1] As quoted by Bhagwan Dayal. *The Development of Modern Indian Education*. Bombay, Longmans, 1955. p. 474.

So far as the training of secondary teachers is concerned, there were only two training colleges in this early period, viz., Government Normal School, Madras (1856) and Lahore Training School (1881). These institutions, however, admitted graduates and under-graduates in the same class. The courses included what the teachers had to teach in schools and very little of professional subjects. The Madras Normal School was, however, placed on "an efficient footing having a model school and a practical school attached to it."[1]

But the training of secondary teachers could not take a definite shape during this period. It was felt that only university graduates should be employed as secondary teachers, and that they did not need any professional training as they had a good general education. There was a good deal of controversy regarding this subject in England too. In that country, while one school believed in the French ideology, the other swore by the German. The French education held that a normal school should aim at 'giving the pupil thorough instruction much more in the subjects which he was interested to teach. . .than in the methods of teaching them'. In contrast to the French practice, the German practice laid a great stress on the study of pedagogy.

The influence of the controversy was felt in India too, and opinions were divided on the content of teacher education. While one school believed in equipping the teacher with the knowledge of the subjects he expected to teach, the other school advocated the study of their principles and practice of teaching at a training institution.

TEACHER TRAINING (1882-1947). — Thus the earliest teachers were not trained, and they had practically no knowledge of pedagogy. The need for definite training became articulate through the recommendations of the Indian Education Commission of 1882 and the Government of India's Resolution on Educational Policy, 1904. The Education Commission urged the need for establishing a number of normal schools, "so that they would be widely distributed throughout the country."[1] With regard to the training of secondary teachers, the Commission recommended that:

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[1] *Stanley's Despatch*, para 23.

> an examination in the principles and practice of teaching be instituted, success in which should hereafter be a condition of permanent employment as a teacher in any secondary school, Government or aided.[2]

The Commission further recognised the need for giving a separate and distinct type of training to graduate and undergraduate teachers, both in regard to the course of training and the syllabus. By the end of the nineteenth century, there were six training colleges (Madras, Lahore, Rajhamundry, Kurseong, Jabalpur and Allahabad) and fifty training schools for secondary teachers in the country.

The Government of India's Resolution of 1904 emphasised the problem of teacher education in its various aspects. It laid down the following principles:

> 1. More men of ability and experience in the work of higher training should be enlisted to provide an adequate staff of well trained members of the Indian Education Service.
>
> 2. The equipment of a training college for secondary teachers is at least as important as that of an arts college.
>
> 3. For graduates, the training course should be a one-year university course, leading to a university

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[1] *Report of the Indian Education Commission*. para 2.

[2] *Ibid*. para 3.

degree or diploma. The course should be chiefly directed towards imparting to them a knowledge of the principles which underlie the art of teaching and some degree of technical skill in the practice of art. For others, it should be a two-year course, embracing the extension, consolidation and revision of their general studies to make them capable teachers.[1]

4. The training in the theory of teaching should be closely associated with its practice, and for this purpose, a good practising school should be attached to each college.

5. Every possible care should be taken to maintain a connection between the training college and the school, so that the student on leaving college and entering upon his career as a teacher may not neglect to practise the methods which he has been taught.

These recommendations had far-reaching influence on teacher education in India: (1) the number of training institutions increased; (2) provision was made for separate courses for graduates and under-graduates — a year's professional course for the former, and two years' course for the latter providing professional and general programmes, and (3) practising schools, attached to training institutions, were established.

The document also ended the controversy regarding the content of teacher education programmes. It definitely laid down that without a grounding in the general principles of teaching, no amount of knowledge of the subject-matter can help a teacher of secondary schools to teach.

Lord Curzon's policy of awarding central grants to provincial governments for expenditure on education also helped the cause of teacher education. A number of secondary training colleges were soon established—S.T. College, Bombay (1906), David Hare Training College, Calcutta (1908), Patna Training

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[1] *Government of India's Resolution on Educational Policy*, 1904. para 39.

College (1908), Dacca Training College (1910), and the Spence Training College, Jabalpur (1911).

The policy, initiated by the Resolution of 1904, was further strengthened by the government declaration in 1912 that "eventually under modern system of education no teacher should be allowed to teach without a certificate that he has qualified to do so."[1] The Calcutta University Commission, 1919, further strengthened the concept of teacher education. It emphasised the need for systematising research and increasing the output of trained teachers, creating a Department of Education in an Indian University and the setting up of a demonstration school to be attached to each training college for doing experimental work. The Hartog Committee, 1929, made important recommendations about the training of primary teachers. It suggested that the standard of general education of primary teacher should be raised, that the course of training should be sufficiently long, that the training institutions should be more adequately staffed for greater efficiency, that frequent refresher courses and conferences should be arranged for the benefits of teachers already in service, and that the service conditions of primary teachers should be improved to attract and retain better quality of teachers, etc.

As a result of these declarations; Departments of Education were established in some universities, research degrees in education were instituted, and refresher courses for teachers began to be organised. The teachers' training institutions also developed steadily, equipping their laboratories, adding to their libraries, organising their practising schools, and so on. As a result of this movement, three distinct types of institutions gradually evolved: (1) for graduate teachers, (2) for undergraduate teachers teaching in middle schools, and (3) for primary teachers. Other types of teacher education institutes were more or less unknown.

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[1] *Government of India's Resolution on Educational Policy*, 1913. para 51.

Between 1906 and 1947, the proportion of trained teachers to the untrained also increased appreciably. While in 1946-47 approximately 61·5 per cent of secondary and primary teachers were trained,[1] the percentage of trained teachers was hardly 29 for high schools, 37 for middle schools, and 25 for primary schools in 1906-07.[2]

One important event of this period deserves mention. Prior to 1901, the average entrant to the primary training institution had completed only his primary school; and consequently the status of the training institution was more or less that of a middle school. Between 1901-21, with the expansion of middle school and secondary education and improvement in salaries of primary teachers, the level of general education of the entrants to the profession began to improve. The entrant to the training institutions now had at least completed the middle stage of education and about 9 per cent of them had even completed the secondary stage. The status of the training institution was, therefore, automatically raised and it now became equal to that of secondary schools in terms of the qualifications expected of the teacher educators, their scales of pay, the qualifications and scale of pay of the principal and such other matters.[3]

TEACHER EDUCATION. — Thus the training of teachers had for several decades been enjoying remarkable growth and had been benefited by many improvements. Since independence, a new conception of teacher training has tended to develop. It is due to several factors. Firstly, the needed improvement of education in different fields which Free India envisages implies the improvement of teaching and hence teacher education. Secondly, pre-independence concepts and pattern of behaviour no longer command prestige in the country at present. If teacher education is to make its real social contribution in the existing situation, it must be guided by democratic values and procedures. Thirdly, the philosophy and practices of teacher education is being shaped mainly by Indian leaders themselves and not by foreign educationists. Fourthly, the concept of teacher preparation is undergoing a rapid change throughout the whole world. It has been realised that teacher education is something deeper than mere teacher training. It affects all areas of living, it requires many years of learning, and it has its roots in a vital philosophy of daily living with children. As W. H. Kilpatrick, the famous American educationist, once stated that one *trains* circus performers and animals, but one *educates* teachers. Finally, under the influence of the new ideology of basic education the old concept of teacher education is undergoing a radical reorientation. It is being based on the need of the pupils and the community. This feeling is being further strengthened by the recomendations of the Indian University Education Commission and the Secondary Education Commission. The first commission pointed out that "a real education is not so much a matter of lessons to be learnt and memorised as of a life to be lived and purposeful activities to be shared."[1] In fact in all programmes of teacher preparation in the country today, the emphasis is gradually shifting from training to education.

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[1] *Progress of Education in India*, 1937-47, Vol. I. p. 31.

[2] *Progress of Education in India*, 1907-12, Vol. I. p. 187.

[3] Ministry of Education. *Report of the Study Group on the Training of Elementary Teachers in India*. Delhi, Manager of Publications, 1963. p. 12.

GENERAL LAY-OUT

Since independence, efforts are being made to provide increased facilities for teacher education. In 1948 the enrolment in teacher training institutions was 42,157; in 1962-63 this enrolment increased to 2,17,027: 6,22 for M. Ed., 23,398 for B. Ed. and equivalent diplomas 730 for ph sical education diplomas for graduates, 1,80,681 teacher education primary, 2,101 teacher education pre-primary, and 3,197 in physical education courses for undergraduates.

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[1] *University Education Commission's Report.* p. 215.

Broadly speaking there are seven types of teacher education institutions in India at present:

(1) Pre-primary centres;
(2) Training schools for elementary teachers;
(3) State Institutes of Education;
(4) Secondary training schools for under-graduate teachers;
(5) Training colleges for graduate teachers;
(6) Regional colleges of education;
(7) Training centres for specialists; and
(8) Training institutions for women teachers.

PRE-PRIMARY CENTRES. — Pre-primary education is still in its infancy in India, and facilities for the education of pre-primary teachers are rather meagre. During 1962-63, there were only thirty-four pre-primary training institutions with an enrolment of 2,101 — 135 men and 1,966 women.[1] Thus the majority of students are of the fair sex.

The curriculum of these institutions is not uniform and caters to the needs of different types of pre-primary schools, viz., the nursery, the Kindergarten, the Montessori, and the pre-basic. Practically every State is conducting a certificate examination for pre-primary teachers. The majority of institutions present their candidates to these examinations, but seven institutions are affiliated to the Nutan Bal Shikshan

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[1] Indian Ministry of Education. *Selected Statistics, 1962-63 op. cit.* pp. 1-2.

Sangh, four to the Association Montessori International, and three to the Hindusthani Talimi Sangh. The universities of Baroda and Jabalpur have also instituted diploma courses in pre-primary education. The diploma course in Early Childhood Education of Baroda University consists of:

- Part A — Theory (Four Papers) — 400 marks.
  - Paper I — Understanding the Pre-school Child;
  - Paper II — Nursery School Education and Management;
  - Paper III Parent and Community Education; and
  - Paper IV — School Health and Nutrition.
- Part B — Practical and Field Work — 400 marks. Practical and Field work consists of:
  - (1) Full time participation in the Nursery School;
  - (2) Laboratory work in "Creative Nursery School Programme"; and
  - (3) Individual study of one child.

Provision has also been made for advanced work in pre-primary education at certain centres. The National Council of Educational Research and Training is conducting a post-graduate diploma in Nursery School Education. The Faculty of Home Science, Baroda University, awards the M.Sc. degree in Child Development and a post-graduate diploma for pre-primary teachers.

TRAINING SCHOOLS FOR ELEMENTARY TEACHERS. — There has been a considerable expansion of training institutions for elementary teachers. The total number of training institutions increased from 649 in 1946-47 to 782 in 1950-51, 930 in 1955-56 and 1,118 in 1960-61. Similarly, the enrolment of these institutions increased from 38,773 in 1946-47 to 69,416 in 1950-51, 83,467 in 1955-56 and 1,22,612 in 1960-61.

Types. — These institutions are of two types — basic and non-basic. But this distinction is soon disappearing, as basic pattern has been accepted by the entire country. As a result of this, new institutions are all of the basic type and the old non-basic training schools are being converted as Basic institutions.

Training institutions are again for men and women. Co-education is almost absent in the training of elementary teachers. Out of a total number of 1,034 training institutions in 1959-60, as many as 805 were for men and 239 for women.[1]

Management. — The training institutions are conduced by various managements. Their distribution is shown in Table 50.

TABLE 50

Training or Normal Schools by Management, 1959-60*

Management	*Schools*
Government	671
Local Boards	17
Private Bodies	
Aided	274
Unaided	72
Total	1,034

* *Education in India*, 1959-60. Vol. I, p. 183.

It may be noted that Government managed all training schools in Jammu & Kashmir, Andaman and Nicobar Islands, Delhi, Himachal Pradesh, Manipur, N.E.F.A. and Tripura, and 75 per cent and 100 per cent schools in the States of Bihar, Madhya Predesh, Orissa, Rajasthan, and Uttar Pradesh. In the States of Andhra Pradesh, Mysore, Panjab and West Bengal, the majority of training schools were under government control. Private bodies dominated in the management of training schools in Gujarat, Kerala, Madras and Maharashtra.

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[1] *Education in India, 1959-60.* Vol. I. p. 183.

During 1959-60 and 1960-61, the Government of India instituted a centrally sponsored scheme under which grants-in-aid, on a 100 per cent basis, were given to State Governments for expanding facilities for the training of elementary teachers.

Courses. — The primary schools have three types of teachers: (1) graduates, (2) matriculates and (3) 'middle' or 'Primary School Certificate Examination' pass teachers. The graduates are trained in secondary training colleges. In 1958-59, there were 16,863 graduate teachers in elementary schools as against 5,514 and 1949-50.[1]

During recent years, the matriculates are being recruited in larger numbers. In 1950-51, the total number of matriculates recruited was about 14,563 (or 59 per cent of the newly recruited teachers) out of a total recruitment of about 26,651. In 1958-59, the total number of matriculates recruited rose to 33,683 out of a total of 46,153, i.e., 73 per cent.[2] Even then the majority of elementary teachers are 'middle' or 'Primary School Certificate Examination' pass.

The duration of the training course both for second and third categories of teachers varies from one year to two years according to States. Generally, it is of a year's duration for the matriculates and two years' duration for the non-matriculates. The syllabus of primary teachers of the old Bombay State, and which is still followed in Gujarat-Maharashtra consists of:

UTE OF EDUCATIO

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[1] Ministry of Education. *Report of the Study Group on the Training of Elementary Teachers India. op. cit.* p. 33.

[2] *Ibid.* p. 33.

Group I — (Crafts) : 300 marks. — This group includes (a) three basic crafts (spinning, agriculture, wood-work); and (b) four auxiliary crafts (spinning, gardening, cardboard work, home crafts). — A candidate has to select *one* of the three basic crafts, and *two* of such auxiliary crafts as do not form part of the basic craft. — Home craft is a compulsory subject for lady teachers.

Group II — Education. — (A) Written examination in three papers (50 marks each), viz., (1) principles of teaching, (2) school management and organisation, and (3) methods of teaching; and (B) Practical examination (100 marks for the year's work, and 50 for the final lesson). — The year's work consists of: (1) 20 correlated lessons, (2) observation of fifty lessons, (3) one week's continuous teaching in a basic school, (4) three multiple class lessons and (5) the preparation of at least two single teaching aids.

Group III — Academic subjects consisting of six papers (50 marks each): (1) regional language I (Texts), (2) regional language II (General), (3) Hindi, (4) social studies (5) general science and (6) general mathematics or classical language.

Group IV — Community Experience (100 marks) — There is no practical examination in this group. Marks are assigned to candidates on the basis of the year's work. This includes training in health, participation in the community actiyitity of the college and organisation of community activity in the practising school.[1]

The above syllabus is the same for non-matric and matriculate teachers except for Group III, where an advanced syllabus is followed for the latter owing to their higher academic background.

THE STATE INSTITUTES OF EDUCATION. — A notable development during the Third Plan period is the establishment of a State Institute of Education in every State. These are financed entirely by the Indian Ministry of Education. The main function of these institutions is to provide in-service training courses for teacher educators of elementary training colleges and the inspecting staff. The Study Group on the Training of Elementary Teachers in India has suggested that the institutes should be charged with following functions:

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[1] Bombay Government. *Courses of Studies for Primary and Basic Training Colleges in the State of Bombay*. 1956. pp. 1-3.

> 1. to provide in-service training to teacher educators and the inspecting staff connected with elementary education. The aim should be that every teacher educator and inspector should receive in-service education in a course of three months' duration once every five years. The in-service courses should be adapted to the specific needs of different categories of teacher educators and inspectors and should be a combination of general and special programmes;
>
> 2. to undertake studies, investigation in all problems of education, research in methods of teaching and the curriculum in elementary schools. These studies and researches will be mainly functional in character, designed on the one hand to tackle the problems presented by the teachers out of their day-to-day experiences, and, on the other, to evolve new techniques for dissemination amongst the teachers through the extension centres; and
>
> 3. to carry out periodic evaluative studies of the programmes of training institutions, extension activities and the progress of elementary education in general and of basic education in particular.[1]

SECONDARY TRAINING SCHOOLS. — The teachers for the middle or junior secondary schools are generally undergraduates (matriculates or intermediates). They are trained in secondary training schools. The duration of the course is of one or two years, and the successful trainees are awarded a certificate or a diploma either by a university or the State Department of Education. For example, the universities of Baroda, Bombay, Gujarat, Karnatak, Poona, Nagpur, Jabalpur and Saugar provide for courses leading to the examination for a diploma (T.D. in the first five universities, and Dip. T. in the last three universities). While the T. D. course is of a year's duration for F.Y.A. pass candidates and teachers with three years' experience, the Dip. T. course is of two years' duration. The Calcutta University conducts the L. T. examination (one year's course) for intermediate candidates only. Some of the State Departments of Education also hold examinations for under-graduate teachers: Bihar, C.T.; Bombay, S.T.C.; M.P., C.T.; U.P.,C.T.; and West Bengal, T.T.C.

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[1] Ministry of Education. *Report of the Study Group on the Training of Elementary Teachers in India. op. cit.* p. 37.

The curricula of the various courses differ from university to university, and from State to State, but the structure is more or less the same. It is generally divided into two parts: (A) *Theory*, consisting of four papers — (1) Educational Psychology, (2) Principles of Teaching; (3) Methods of Teaching, (4) School Organisation and Hygiene, and (B) *Practice-teaching* during the period of training.

TRAINING COLLEGES. — The graduate teachers of India receive their professional education in secondary training institutions. The majority of the colleges enrol men as well as women. Of course, some of the institutions are meant exclusively for women. In 1964, there were 243 secondary training colleges in the entire country. The distribution of these institutions according to management is given in Table 51.

TABLE 51

Number of Secondary Training Colleges by Management, 1963-64*

State	Government	University Depts/ Colleges	Private Colleges	Total
Andhra Pradesh ..	5	1	3	9
Assam ..	2	1	2	5
Bihar ..	5	3	—	8
Gujarat ..	3	2	8	13
Jammu & Kashmir..	2	—	1	3
Kerala ..	5	1	15	21
Madhya Pradesh	11	—	2	13
Madras ..	8	1	12	21
Maharashtra ..	6	3	11	20
Mysore ..	5	2	9	16
Orissa ..	3	—	1	4
Punjab ..	6	2	15	23
Rajasthan ..	2	—	6	8
Uttar Pradesh ..	4	6	45	55
West Bengal ..	4	4	10	18
Union Territories				
Delhi ..	—	1	2	3
Himachal Pradesh	1	—	—	1
Manipur ..	1	—	—	1
Tripura ..	1	—	—	1
Total	74	27	142	243

* Compiled by DEPSE.

Of the 243 institutions as many as 219 are affiliated to universities and only 24 are controlled entirely by eight different State Departments of Education. It may be further noted that the curriculum control of over half of the university affiliated training colleges is in the hands of six universities (Agra, Calcutta, Gorakhpur, Kerala, Madras and Punjab), each of which has responsibility for ten or more training colleges. Another fourth are controlled by seven additional universities (Gauhati, Gujarat, Mysore, Nagpur, Poona, Rajasthan and Saugar) each of which has between five and ten affiliated colleges. The other fourth have control scattered in thirteen different universities, each of which has two to four affiliated training colleges. There are again sixteen unitary universities, which have their own Eduation Departments or Faculties.

Training colleges of India are again of two types: (1) traditional and (2) basic.

Traditional. — Since independence, the country was realising that the B. Ed. course was not suitable to meet the requirements of secondary teachers of Free India. The University Education Commission of 1949 declared that the new education should combine practice in the everyday process of living and working, with more formal training. This ideology has influenced the contents of courses at the B. T. or B. Ed. level. A committee, set up by the Indian Ministry of Education in 1956, drew up a model syllabus for the B. Ed. examination with three-fold objectives: (1) reduction of the bulk of the Theory Course, (2) training every candidate in a special branch, and (3) widening the scope of practical work. The majority of the universities have revised their B. Ed. programme on suggested lines.

The reorganised B. Ed. course generally includes:

1. Theory (4 papers): (1) Principles of Education and School Organisation, (2) Educational Psychology and Health Education, (3) Methods of Teaching School Subjects, and (4) Section A — Current Problems in Indian Education, and Section B — A Special Study of *one* of the following: School Library Organisation, Educational and Vocational Guidance, School Administration, Education of Backward Children, Rural Education, Audio-Visual Education, Mental Measurements, Physical Edu-

cation, Organisation of Co-curricular Activities, Social Education etc.

2. Practical work consisting of (1) practice teaching, (2) observation of lesons, (3) criticism lessons, (4) study of different types and grades of schools, (5) organisation of and participation in co-curricular activities, (6) follow-up by trainees of assignments given to school children and correction of their home work, (7) making a case study, (8) preparation and use of audio-visual aids.

Basic. — With the advent of the basic system, a few basic teachers' colleges have been established in the country. They offer a diploma in basic education to graduate teachers (a year's course). Different States have formulated their own syllabi for this diploma. In order to standardise a common syllabus for the various stages of training in basic education, the following syllabus has been drawn by a Committee of Principals of Basic Training Colleges:

I. *Papers.* — (I) Philosophy and Sociology of Education with special reference to basic education, (ii) Educational Psychology, (iii) Educational Administration and Supervision, *or* Experimental Education and Methodology of Educational Research, (iv) Basic Methods of Teaching, (v) Craft Work: Theory and Practice.

II. *Crafts.* — One main Basic Craft and one or more subsidiary crafts: (a) *Main* (*Basic*) *Crafts.* — (i) agriculture, including animal husbandry, (ii) spinning and weaving, (iii) cardboard modelling, woodwork and related metalwork: and (b) *Subsidiary Crafts.* — (i) House building, (ii) spinning (for those who do not take spinning as the main craft), (iii) vegetable gardening (for those who do not take agriculture as the main craft), (iv) leather work, (v) beekeeping, (vi) pottery.

III. *Practical Work.* — (i) Preparation of schemes of work, (ii) devising and constructing attainment tests for a particular class in the subjects selected, (iii) administration of group and individual tests, (iv) preparation of teaching aids in connection with lessons actually given, (v) preparation of improved materials and technique of instruction in basic schools.[1]

It may be noted that the diploma is not awarded by a university and is generally granted by the State Department of Education. The Assessment Committee on Basic Education has, however, suggested that the government should negotiate with universities for the establishment of post-graduate basic training colleges and recognition of post-basic diplomas. It should also be realised that basic colleges do not train teachers for secondary schools, but they train supervisors for primary schools or instructors for basic trainig schools. During 1959-60, there were thirty-five post-basic teachers' training colleges in the country with a student enrolment of 3,446.[2]

THE REGIONAL COLLEGES OF EDUCATION. — With the development of multipurpose high schools, the country felt an acute shortage of qualified teachers in the practical streams. It was realised that the existing training colleges were preparing teachers in the traditional academic subjects, but there were no institutions preparing teachers for technology, agriculture, commerce and other practical streams. The strengthening of the existing colleges for this purpose was not considered satisfactory since the practical courses in a multipurpose school would need a major reorientation of the college programme as well as more buildings and attached model schools for practice teaching. It was, therefore, considered to organise four regional training colleges for this purpose. These have been set up at Ajmer, Bhubaneswar, Bhopal and Mysore. They will serve the following areas:

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[1] Ministry of Education, *The Five Year Plan: Schemes of Educational Development*. pp. 4-5.

[2] *Education in India*, Vol. II, 1959-60. pp. 6-12.

1. Ajmer — Northern Region, consisting of Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh, Delhi and Himachal Pradesh.

2. Bhubaneswar — Eastern Region, consisting of Bihar, Orissa, West Bengal, Assam, Manipur and Tripura.

3. Bhopal — Western Region consisting of Maharashtra, Madhya Pradesh and Gujarat; and

4. Mysore — Southern Region consisting of Andhra Pradesh, Mysore, Madras and Kerala.

Approximately, one hundred acres of land have been provided for the campus of each college. All the regional colleges provide: (1) One-year courses for graduates in technology, agriculture, home science, commerce, science and crafts; (2) Short term in-service courses and programmes; and (3) Special courses for teachers of crafts. In addition, two of the colleges offer four-year integrated courses for teachers of science and for teachers of technical subjects. The courses represent a combination of special content, general education and pedagogy.

TRAINING CENTRES FOR SPECIALISTS. — Provision has also been made for giving professional training to teachers in certain specialised branches, viz., physical education, aesthetic education, home science, craft and special subjects.

Physical Education — Training in physical education is provided at two levels: (a) college — for graduates and (b) schools — for non-matriculates and undergraduates. During 1960-61, there were as many as 20 training colleges and 41 training schools for physical education in the entire country.[1] In addition to regular training, some of the institutions conduct short courses of three months' duration. The Kaivalyadhama S.M.Y.M. Samiti, Lonavala, offers a diploma in Yoga. It should also be realised that none of the Indian universities have instituted courses in physical education. The diplomas and certificates of various physical education centres are awarded either by Government or by the institution itself and not by a university.

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[1] *Education in the States*, 1960-61. pp. 2-5.

On June 30, 1957, the Union Ministry of Education established the Lakshmibai College of Physical Education in a campus of about 100 acres at Gwaliar. The admission to the College is restricted to male students only, as facilities for girl students are not available for want of buildings. The course at the college which has been worked out by a committee of experts presided over by Dr. Zakir Husain, consists of theory, practical work and teaching practice as far as the professional course in physical education is concerned, and it also, for the first time, includes a broad and balanced course of general education. This is the only institution of its kind in the country providing facilities for a three-year degree course in physical education and, in course of time, to offer facilities for advanced studies and research.

Under the Five-Year Plans, financial assistance is being given to the physical education institution by the Central Government on the basis of an on the spot assessment of the institutions needs for improvement and development.

Aesthetic Education. — Facilities for training teachers in aesthetic subjects is more or less non-existent in this country, and there are hardly a few centres providing the necessary training. Some of the important institutions are: (1) Visva-Bharati for music, dancing and painting, (2) Sir. J. J. School of Arts, Bombay for drawing; (3) M. S. University of Baroda for fine arts, (4) Kala Khsetra at Adyar, Madras for dancing, (5) Teachers' College of Music, Madras for music, (6) Government School of Arts, Lucknow for arts, and (7) Institute of Arts Education, Jamia Millia, Delhi for art teachers.

Home Science. — With the growing popularity of the home science course at the seconday stage, it has become necessary to train teachers for this purpose. There are several institutions undertaking this work, viz., Lady Irwin College, Delhi; S.N.D.T. Women's University, Bombay; Faculty of Home Science, Baroda; Domestic Science Training College, Hyderabad; Government College of Home Science for Women, Allahabad; and the Regional Colleges of education.

Craft. — With the introduction of craft as a compulsory subject at the middle stage, the need for craft-teachers is being strongly felt in the country. The Education Departments of some States have organised training centres for such teachers either in technical high schools or in schools of craft.

Special Subjects. — Some of the State Departments of Education and teachers' colleges conduct regular courses for teachers of special subjects like geography, English and *rastrabhasha* (Hindi). The courses are generally of a year's duration.

TRAINING INSTITUTIONS FOR WOMEN TEACHERS. — Women teachers are trained in men's institutions as well as in women's training schools and colleges. During 1960-61 there were 92 training colleges and 257 training schools for the fair sex in the whole country, and as many as 46,726 women candidates were under instruction.[1]

POST-GRADUATE WORK AND RESEARCH

EXISTING COURSES. — The post-graduate courses in education are of three types: (1) M. Ed. (a year's or two years' course after B. T. or B. Ed.), (2) post-graduate diploma course in education of a year's duation after B. Ed., and (3) the Ph. D. course (two years' investigation after M. Ed.).

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[1] *Education in the States*, 1960-61. pp. 1-4.

Practically every university has instituted the M. Ed. degree. The Calcutta and Gauhati universities, however, conduct M.A./M.Sc. course in Education which is of two years duration for arts/science graduates. The M. Ed. course consists of a number of papers and the preparation of a small thesis or dissertation in lieu of papers or in some cases, as an additional requirement. Some of the universities have an independent M. Ed. course of two years' duration. It is entirely based on thesis.

A recent innovation is the introduction of the post-graduate diploma in some of the branches like Educational Administration, Guidance and Counselling, and Linguistics. These diplomas are of a year's duration, and are conducted by a few universities or institutions.

Investigations of an advanced and original type and the discovering of new facts are necessary for the Ph.D. degree. It is, however, observed that "the researches and experiments done at the Ph.D. level are not appreciable though provision exists for such studies in a number of universities."[1]

This is the position of the traditional system. Post-graduate courses in basic education have not yet been organised in the country, though a number of basic teachers' colleges carry on investigations and researches of an advanced nature. The Ministry of Education has recently set up the National Centre for Research in Basic Education for improving the standard of basic education. The centre is a clearing house of information on various aspects of basic education.[2]

RESEARCH GRANTS. — In 1953-54 the Ministry of Education initiated a scheme for giving grants to teachers' colleges and

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[4] G. N. Kaul and T. K. N. Menon. *Experiments in Teacher Training*. Delhi, Ministry of Education, 1954. pp. 5-6.

[2] *Supra*, p. 45.

Departments of Education in the universities in order to enable them to carry out research on educational problems chosen by them and approved by the Central Ministry. The main purpose of the scheme is to provide facilities for research which, in many instances, has been held up owing to dearth of funds. It is to be carried on by the staff of the training colleges assisted by some research fellows assigned to them and some financial facilities. Equipments are also provided to facilitate the completion of the projects. The UGC is also giving substantial grant to university teachers for conducting their own researches.

THE NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING. — The unprecedented expansion of educational facilities, since independence, to meet the needs of a growing democracy and a developing economy has also given rise to many problems in the field of education. But there was no single agency to give fundamental thought and study the whole range of educational problems facing the need. In 1961, the Indian Ministry of Education established the National Council of Educational Research & Training to fill this gap in the educational structure of the country. The major objectives of the Council's work are:

1. to promote, organise and foster research in all branches of education;
2. to organise advanced level training;
3. to disseminate knowledge of improved educational techniques and practices in the school system; and
4. to act as a clearing house and with this object to undertake special studies, surveys and investigations.

While due attention is given in the Council's programme to fundamental research in the field of educational science, the primacy of emphasis is on investigation of problems which confront the educatinal system of the country, and on devising measures of immediate and practical help to educational workers. The programmes represent a coordination of the efforts of all those who work in the fields of education — the teachers, universities, teacher training colleges, and State Departments of Education. The entire work of the Council is conceived in terms of a close and continuous communication with all those involved in the educational enterprise.

The training programme of the Council will aim at devising improved techniques of training and building up professional leadership. Problems of methods and organisation of training will be subjected to continuous re-examination and evaluation so that they keep professional training closely in tune with changing educational needs. The Council will provide facilities in the National Institute of Education for professional training and research at an advanced level to scholars drawn from all the States of the Union who will be in residence in the Institute, and thus make its contribution to building up cadres of educational workers which a national system of education so urgently needs.

In order to carry out its objectives, the Council has established the National Institute of Education as the pincipal institutional agency for developing research, advanced training and extension services: The following departments are being organised in the Institute:

1. Social and Philosophial Foundations of Education and Comparative Education;
2. Psychological Foundations of Education;
3. Educational Administration;
4. Curriculum, Textbooks and Methods of Teaching, Science Education,
5. Basic and Elementary Education;
6. Fundamental Education;
7. Audio-Visual Education; and
8. Department of Instruction.

THE CENTRE FOR ADVANCED STUDY IN EDUCATION. — Another landmark in the improvement of standards of teaching and research in Indian universities is the recent policy of the University Grants Commission of setting up centres for advaced study in different branches of knowledge. These centres are intended to encourage the 'pursuit of excellence' and to accelerate the attainment of international standard through team work. The Commission intends to develop 20 to 30 such centres in various fields of learning in the next few years and watch the experiment carefully with a view to establishing more of such centres at appropriate places.

The Commission has selected the Faculty of Education and Psychology, Baroda as the Centre for Advanced Study in Education. This Centre will function on an all-India basis and will aim at raising standards of teaching and research in education. As an all-India institution, it will encourage team work among senior teachers and scholars throughout the country. It will also build up its programme in cooperation with research workers from outside. During the Third Plan period, the Centre intends to concentrate its attention on 'Curriculum and Instruction, Psychometrics and Research Methods, Language Learning, ond Guidance and Counselling'.

IN-SERVICE EDUCATION

TWO ASPECTS OF TEACHER EDUCATION. — The preparation of teachers is one aspect of the teacher education programme, the other aspect is the in-service education or the improvement of teachers in service. In fact, no person should decide to teach unless he is resolved to learn, for a real teacher is a student all his life. The Secondary Education Commission observes:

However excellent the programme of teacher-training may be, it does not by itself produce an excellent teacher. It can only engender the knowledge, skills and attitudes which will enable the teacher to begin his task with a reasonable degree of confidence and with the minimum amount of experience. Increased efficiency will come through experience critically analysed and through individual and group effort at improvement. The teacher training institution should accept its responsibility for assisting in this in-service stage of teacher training.[1]

IN-SERVICE PROGRAMMES. — From time to time, the State Departments of Education and the teacher education centres have been organising: (1) refresher courses, (2) short intensive courses in special subjects, (3) practial training in workshop and (4) seminars and professional conferences for teachers in service. But these attempts have not been very systematic.

IN-SERVICE EDUCATION FOR SECONDARY TEACHERS. — A comprehensive programme of in-service education of teachers, which perhaps does not exist in any part of the world, has been recently organised in the country. Under this scheme, the Ministry of Education has set up a new Department or a Unit of Extension Services in as many as 92 training colleges. This could be achieved with the financial assistance given by the Ford Foundation and the technical equipment provided by the Technical Co-operation Mission, U.S.A.

The activities of the Extension Departments can be grouped under the following heads: (1) week-end, short-term and long-term courses, (2) workshops, seminars and group discussisons, (3) educational weeks and exhibitions, (4) advisory and guidance seminars, (5) library services, (6) audio-visual aids services and (7) publications.[1]

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[1] *Secondary Education Commission's Report.* p. 178.

The extension departments and units work under the Directorate of Extension Programmes for Secondary Education (DEPSE). It was set up in 1955 and is a division of the National Council of Educational Research and Training.[2] It has organised a country-wide net-work of field service to the secondary schools, mainly through the extension services project. It also organises in-service programmes directly at all-India, Regional and State levels on various aspects of secondary education.

IN-SERVICE EDUCATION(ELEMENTARY TEACHERS)— The need for an in-service education programme for elementary teachers has also been realised; and a beginning has been made in the Third Five-Year Plan itself. Approximately on the basis of two centres per State, thirty centres have been established during 1963-64 and another set of thirty are likely to be set up during the following year. These centres have been attached to training institutions for elementary teachers. It is aimed that every elementary teacher should have an in-service training of not less than two months' duration in every five years of service. The in-service departments are at present working under the Director, National Institute of Basic Education.

A PROGRAMME FOR RECONSTRUCTION

STUDY-GROUPS — The present position of the teacher education is by no means satisfactory, in spite of its rapid progress during recent years. Numerous problems have arisen with this development and the dawn of independence in the country. As always, the first step in the solution of problems of sub-continental dimensions is the awareness of them. This awareness was not generally evident till after independence. Three important study-groups examined the problems of teacher education during recent years. These study-groups are:

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[1] *Second Seminar on Extension in Training Colleges, Srinagar*, June-July, 1955.

[2] *Supra*. pp. 136-37.

1. The study team for selected educational schemes, set up by the Committee on Plan Projects in the Planning Commission;
2. The study group on the training of elementary teachers in India, appointed by the All-India Council for Elementary Education, in October, 1961; and
3. The study group on the education of secondary teachers in India, set up by the National Council of Educational Research and Training and the All-India Association of Principals of Training Colleges in February, 1964.

TWO ASPECTS. — All the three above study-groups more or less agreed that any plan of expansion of educational facilities at the primary and the secondary level brings to the forefront the problem of providing training facilities to ensure a steady source of supply of efficienctly trained teachers. The type of professional training that a future teacher receives is one of the important determinants of the quality of education imparted in our primary and secondary schools. Unfortunately, teacher education has been rather a very weak aspect of our programmes of expansion and improvement of education at primary as well as secondary levels. It must be admitted that planning in the field of education — primary as well as secondary — has rather suffered due to absence of corresponding planning to ensure an adequate supply and thorough preparation of trained teachers in our country.

The problem of teacher education presents two major aspects. On the one hand there is a need to supply the required number of trained teachers in keeping with the demand for teachers in our schools and on the other hand there is still the more important question of improving the quality of teacher education. On these depend the future quantitative expansion as well as qualitative improvement of our entire educational system.

QUANTITATIVE ASPECT. — So far as the quantitative aspect is concerned, the task facing the teacher education of the country is to train between 1966-71 forty-five to fifty thousand more secondary school teachers and 150 thousand more primary teachers per year to serve the additional enrolment in primary and secondary school population expected during this period. Requirements of this order will necessitate a huge expansion in training facilities.

QUALITATIVE ASPECT: *Introduction.*— It is hardly an exaggeration to say that the system of training of teachers of this country has remained unchanged during the last fifty years, even while the schools have gone out of recognition, in the composition of their population, the social purposes that they are to serve and the changed demands of a developing society. Thus there is an urgent need for improving the qualitative aspect of teacher education. This can be viewed in terms of:

1. Integration of teacher education programmes;
2. Administration;
3. Finance;
4. Educational institutions;
5. Admission qualifications of student teachers;
6. Programmes of pre-service education;
7. Practice teaching;
8. In-service education;
9. Teacher educators;

10. Research and publications;
11. Preparation of college teachers; and
12. Lack of coordination.

Integration. — Teacher education of this country has suffered greatly, because it has been wrongly divided into water-tight compartments on the basis of the stage of education for which a teacher training institution prepares teachers. It is an extremely wrong policy to compartmentalize teacher education programmes at different levels, viz., pre-primary, primary, secondary, and so on. It should be realized that just as the education of a child is a total process, teacher education also needs to be reviewed as an integrated whole. Teacher education would thus include the preparation of teachers of all levels — pre-primary to secondary (and perhaps university in due course of time).

Administration. — It should also be realised that teacher education has been till now a neglected subject, and the Government has not paid sufficient attention to it. But teacher education has now been recognised as professional education. It was, therefore, that the Study Groups on the Education of Secondary Teachers in India recommended:

> Considering the vital importance of teacher education and the Central Government's constitutional responsibility in this regard, it is recommended that teacher education like any other branch of professional education should be included in the Concurrent list.[1]

The Study Group further suggested that the Central Government should further assume statutory responsibility for teacher education and establish a National Council for

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[1] All-India Association of Training Colleges. *Report of the Study Group on the Education of Secondary Teachers in India.* 1964. Hereafter cited as the *Baroda Report*, p. 89.

Teacher Education as early as possible. It should be charged with the responsibility of planning, coordination and maintenance of standards of teacher education throughout the country. The need for setting up a State Council for Teacher Education in each State was also stressed by the Study Group.

Teacher education has also suffered for want of proper planning. It was, therefore, suggested that the State Councils of Education should have following functions: (1) To prepare, in consultation with the universities and State Departments of Education concerned, programmes for the development of teacher education in the State and to supervise their implementation; (2) to set standards for teacher education; (3) to assess the needs of trained teachers of different categories and make this information annually available to teacher training institutions for their guidance in making admissions; (4) to examine and evaluate the curriculum and syllabuses according to which training programmes, both pre-service and in-service, should be carried out; (5) to arrange for inspection of teacher training institutions; (6) to make grants-in-aid to teacher training institutions; and (7) to coordinate and promote training programmes and coordinate with other agencies in the State and outside in the furtherance of its objectives.[1]

Finance. — One of the greatest handicaps facing the development of teacher education at present is want of adequate funds. The majority of teacher training institutions are struggling for survival. They are without adequate equipment, buildings and qualified staff. The Report on the Survey of Teacher Education remarks:

> Among the 122 institutions reporting only 87 have independent grounds of their own, and only 70 are located in their own buildings. . .Regarding University colleges/

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[1] *Ibid.* p. 90.

> departments,... 77 per cent are not having their own buildings...Accommodation provided in respect of classrooms is inadequate in 86 institutions out of 122 reports.[1]

At the same time, the teaching profession has not been able to attract the type of teachers which the schools need. Two things are essential if suitable persons are to be drawn to the teaching profession. First, teachers should be entitled to salaries corresponding to the importance of their social and educational responsibilities and should be able to adjust themselves entirely to their professions without financial anxiety. Secondly, education in a teacher training institution should not be a financial burden to the trainees.

Another desirable step is the award of scholarships to promising young students in the second year of the degree courses or the first year of the Master's courses so as to cover their tuition fees and maintenance in the final year of their education. Such students may be provided with a short orientation course in pedagogy and employed in schools for an academic year, after which they may have to go through a summer course leading to a professional degree or certificate.

Educational Institutions. — It has already been pointed out that India will need an army of trained teachers during the Fourth Plan period. India has over 1,500 teacher training institutions at present. But the average strength of a teacher education centre at present is less than 100. Under the circumstances, there are two alternatives before the country for meeting the demand of trained teachers during the Fourth Plan period: *either* (1) Build more small colleges of the same general nature as the existing ones, hopefully better equipped and staffed but leaving the existing ones at present; *or* (2) improve the existing colleges and institutions at certain points and double or treble their student populations.

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[1] NCERT. *Survey of Teacher Education in India*, 1963. p. 2.

There is a growing concensus that the second alternative is the preferred one, that the present size of the colleges and institutions is one important factor that militates against their efficiency. Twenty years ago, the McNair Report of England remarked, "We doubt whether a college of much less than 200 is capable of being staffed, equipped and organised both efficiently and economically".[1] The general opinion is more or less against the creation of small-size training institutions, which are likely to be expensive and inefficient. Based on the experiences of other lands, it is felt in this country that the time has come to abandon the policy of regarding a college or school of 100 seats as the optimum size of a teacher training institution. For example, the Report of the Study Group on the Training of Elementary Teachers in India endorsed the finding of the first National Seminar on the Education of Primary Teachers that "a teacher training institution should have four units or classes of 40 trainees each."[2] The Study Group further held that even an increase of 200 will not adversely affect the efficiency of the institution.[3]

It is also being fully appreciated in the country that a small-size institution is not only economically difficult to maintain but also fails to provide for that diversity of programme which sound education requires. This view has been initiated by the "Study Team for Selected Educational Schemes" appointed by the Planning Commission and the Indian Ministry of Education in May, 1961. The Team advocated the centralisation of training of teachers at all stages in a single institute of teacher training to be designated as a comprehensive training institute. It was held that such an institute will have the following advantages:

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[1] *The McNair Report*, 1944. p. 75.

[2] Ministry of Education. *Report of the Study Group on the Training of Elementary Teachers in India. op. cit.* p. 29.

[3] *Loc. cit.*

1. It would be more economical because the same facilities in the form of libraries, psychology and science laboratories, gymnasia and assembly halls would be utilised by a large number of students;

2. All types of teachers—elementary, secondary teachers of science and humanities, arts and crafts, teachers of physical education, domestic science and technical subjects—could be brought together thus enhancing the academic atmosphere for training of teachers;

3. Specialists in the teaching staff would, in general, concentrate on their speciality and bring to bear on the subject knowledge and experience gained by teaching at all levels; and

4. With kindergarten, nursery, primary and secondary schools attached to the comprehensive teachers colleges, identification and solution of problems of research would be easier and the institution will have a comprehensive laboratory for practical problems and experiments.[1]

The Team further held that all the existing colleges for secondary teachers should be encouraged to develop into this type of comprehensive teacher training institutions. It is not possible to suggest a general pattern about the instructional programme for such a type of college, since it will be a multipurpose institution. It is, however, necessary to suggest a few alternative patterns for the general organisation of the proposed institutions. They can be broadly defined under the following categories:

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[1] Committee on Plan Projects. *Draft Report on Teacher Training.* Government of India, 1963. p. 48.

1. 'A' Type College: Each collgee will train 200 one-year B.Ed. students and 100 Elementary teachers;

2. 'B' Type College: In addition to training 200 students for the B.Ed. and Elementary Teachers Certificate Course, such an institution will organize an integrated four-year course in Education for arts and/or science students after the Higher Secondary or Pre-University. It will have 350 students; and

3. 'C' Type College: Each institution will no doubt run the common courses — one-year B.Ed. and Elementary Teachers Certificate Course — two hundred teachers. In addition, it will run post-graduate and other specialised forms of teacher education programmes for about one hundred and fifty trainees.[1]

ADMISSION QUALIFICATIONS OF STUDENT TEACHERS. — Our teachers should have a better academic background. In this, connection, the first step would be to stop the recruitment of non-matric teachers for our primary and middle schools except for tribal or remote areas and for women teachers in rural areas.

For the secondary stage, it will be necessary to make careful estimates of requirements for different subjects for each State. The complexity of this task becomes clear when one looks at the subject break-up of the requirements of the teachers at the secondary stage as revealed in a study made by the Directorate of Extension Programmes for Secondary Education. The following statistics supplied by the DEPSE are very helpful:

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[1] *Baroda Report*. p. 87.

TABLE 52

Teachers Requirements for Secondary Education (Class IX-XI—During the Fourth Plan—1966-71)

	Teachers Required for		
Subject	Addl. Enrolment	Replacement	Total
English	24,433	8,366	32,799
Hindi	18,616	6,382	24,998
Mathematics	12,798	4,371	17,169
History	16,290	5,580	21,870
Civics	9,808	2,935	12,243
Economics	16,290	5,580	21,870
Commerce	3,490	1,281	4,771
Sanskrit	6,981	2,361	9,342
Physics	11,635	3,780	15,415
Chemistry	11,635	3,780	15,414
Biology	5,817	1,890	7,707
Others	2,327	930	3,257
Total	1,39,620	47,236	1,86,856

Table No. 52 indicates that during the Fourth Plan period approximately 1,87,000 teachers will be required for different subjects. Thus on an average, 37,371 teachers will be needed per year. Out of this a large number of teachers will be required in shortage areas like Science, Mathematics, English and Economics.

Programmes of Pre-service Education: (1) Introduction — The curricula and programmes of our teacher training institutions need considerable improvements. These will have to be viewed in sense of (1) Post-graduate instruction (2) the B.Ed. course; (3) the four-year degree course; (4) the professional preparation of the undergraduate teachers; and (5) other programmes.

(2) Post-graduate Instruction. — Post-graduate instruction in Indian universities is generally carried through the M.Ed. course, which is more or less the B.Ed. course of an advanced nature. It hardly satisfies the present needs of the country. It should be realised that the main aim of this course is to train teachers for high grades in the profession such as the headmaster, the inspectorate and teaching staff of training institutions. It may be divided into three parts: (1) *Compulsory* — consisting of (i) a broad survey of education, including curriculum, philosophy of education, educational psychology and a comparative study of modern methods and administrative practices in different countries, and (ii) a course in statistics and new methods of the technique of research; (2) *Optionals*— the study of a special branch with a short dissertation on a selected topic; and (3) *Viva-voce.*

While the compulsory course should aim at giving the educational leaders an over-all picture of education, the optional groups aim at specialisation and training in research. The scope of the present Optional Groups also needs to be widened. It should include subject like mental testing and measurement, curriculum, the teaching of a special subject, elementary education, secondary education, teacher education, extension-work, guidance and counselling, educational administration, educational planning, and similar other fields.

The dissertations for the M.Ed. and the Ph.D. degrees should be of a high order. They should not only contribute to knowledge but should throw some light on Indian education. As Murphy suggests, "The time is coming when the problems for master's and doctoral essays will be chosen in terms of the welfare of India and. . .the solution of some urgent questions."[1]

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[1] G. Murphy. *In the Minds of Men.* New York, Basic Book, Inc., 1953 p. 267.

It will also be necessary to institute post-graduate diploma courses of a year's duration at post-B.Ed. level for preparing:

1. teacher educators for primary teacher training institutions;

2. subject-matter teachers for the higher secondary schools in special fields like English, Science, Mathematics and Social Studies; and

3. counsellors and audio-visual experts.

(3) *B.Ed course.* — The existing B.Ed. course is again found to be out-of-date. It needs to be revised and should have three objectives in view: (1) subject-matter competency; (2) a grounding in the fundamentals of principles of education; and (3) competence in the art of teaching.

(4) *The four-year degree course.* — Even if the B.Ed. course is revised and emphasis is laid on content courses, it will not be possible to make up the previous academic deficiencies of the trainees. A happy solution will be the institution of an integrated four-year degree course in Education after the Higher Secondary Examination. A number of countries have adopted such a programme. It lays stress on three broad areas;

(1) *General Education.* — Emphasis is laid on a broad cultural knowledge and understanding. This liberal background is essential to all professions.

(2) *Specialized Education.* — Emphasis is on mastery of the subject-matter in the fields, which a trainee is expected to teach.

(3) *Professional Education.* — Emphasis is on understanding the general nature of education and learning, growth and development of children, teaching techniques, classroom guidance, tests, measurements, student teaching, school organization and administration.

Such an integrated system has several advantages. In the first place, it permits a close integration of the teacher's general and specialized education with professional training. Secondly, the length of the course makes it possible for the teachers colleges to secure a greater flexibility for spreading out the practical aspects of training like child study, observation of teaching, community experience, student teaching, etc. Thirdly, it also makes it easy for the teacher educator to plan a systematic programme of guidance and counselling with a view to encouraging and helping those students who have the potentialities of a good teacher and discouraging those who are lacking in such potentialities. The system is also helpful in preparing teachers in certain categories of subjects like mathematics, foreign languages and crafts where there is teacher shortage. India has already started an experiment in this direction in the Kurukshetra University and in the four regional colleges of education. It is, therefore, necessary to introduce the four-year degree course at some selected centres. This may be organised by teaching universities or by such education societies as have their own teacher education institutions as well as colleges of arts or/and science.

(5) The professional preparation of undergraduate Teachers.— The training of undergraduate teachers for middle schools is either of a year's or two years' duration. There should be a uniform practice and the duration of the course should be raised to two years — the first year being largely devoted to general education, and the second year to pedagogical subjects and student-teaching. But while the majority of students of these institutions will be trained for general subjects, others should have an intensive and specialised training in *one* of the following:

1. Pre-school education;

2. Craft-teaching (Crafts as suggested by the Secondary Education Commission under Group C);
3. Physical Education; and
4. Art and Music.

(6) *Other programmes.* — Another problem is the training of teachers in such subjects as crafts, fine arts, music, etc., where the total requirement in a State is not likely to be of such a magnitude as to justify the establishment of special training institutions. It would be preferable to organise training programmes in these on a regional basis. It is not necessary that the training in all the branches is given at only one institution. Selection of subjects is to be made with particular reference to what an institution can provide. The regional colleges of education and some of the selected institutions can be entrusted with this responsibility. Regional institutes for this purpose may be set up wherever required.

Practice teaching. — The existing B. Ed. Syllabus includes a number of items in Practical Work. But it does not give sufficient weightage to day-to-day activities of the child and the community, as is being done by the basic system. In fact, practical work is something more than mere handling of some set lessons. In the U.S.A., the contribution of student-teaching to the education of teachers is three-fold:

1. An opportunity to implement theory — both to study the pragmatic value of the theory and to check with the student his understanding of the theory in application;
2. A field of activity which, through raising questions and problems, helps the student to see his needs for further study; and
3. An opportunity to study with the student his ability to function effectively when guiding school teaching-learning situations.[1]

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[1] AACTE. *School and Community Laboratory Experiences in Teacher Education*, Oneonta, N. Y., 1952. p. 16.

It will, therefore, be necessary to extend the scope of practical work in our teacher education programme too. It cannot be confined to the classroom situations and should include participation in all phases of the teacher's responsibilities — in the classroom, in the total school programme, in the community, both as a citizen of the community and to improve the professional understanding and abilities of teachers.

But it will not be possible to undertake such a comprehensive type of practical work, unless every training college has a good experimental school attached to it for identifying and attempting solutions of educational problems. The student teaching should further provide a period of about six weeks' continuous block practice during which the pupil teacher should be attached whole-time to some related school, preferably in a rural area. This practice is being successfully followed under the basic system and is bringing the trainees in contact with real life situations. Practical work should also provide all the experiences, as included in the B. Ed. Syllabus.

Thus the responsibility of a training college will not end by giving the pupil teacher some nodding acquaintance of the tricks of the trade, but it has to develop in him a growing understanding of human growth and development and of the process of learning. But within a short period of nine months, it will not be possible to achieve that end. This is why the Secondary Education Commission felt it necessary to extend the period of graduate training to two academic years, but it found it impracticable to implement the suggestion "in view of the number of teachers required and also because the teachers themselves can ill spare two years for such training."[1] But with the reduction of the bulk of the Theory Course and a proper integration of theoretical and practical programmes, much can be achieved within a period of one academic year of 240 working days.

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[1] *Secondary Education Commission's Report* p. 175.

IN-SERVICE EDUCATION. — In-service education has to be considered in terms of the needs of: (a) school teachers, (b) teacher educators, and (c) educational leaders.

So far as the school teacher is concerned, it is necessary that the Government of India establishes an Extension unit/centre in every secondary teachers college. The Baroda Report further suggested that 'It should be obligatory on the part of all teachers to go through a refresher course at least once in three years."[1] At the same the ultimate objective of the in-service education of elementary teachers should be to give to every primary teacher, in-service training of not less than two months duration in every five years of service.

In-service education programmes of teacher educators should include: (1) regular courses leading to a degree or a diploma, (2) short term courses in special fields, and (3) correspondence courses. In addition, exchange of visiting professors and short study visits of teacher educators should also be organised.

Seminars and workshops should be conducted at State, Regional and National levels for our educational leaders like headmasters, inspectors, managements of schools and heads of teacher training institutions. At the same time, every State Institute of Education should organise regular in-service programmes for leaders working the field of elementary education. An agency of this type is also needed at the national level for secondary teachers. The Baroda Study Group suggested that "the Indian Ministry of Education should thus set up a Staff College of Education and Educational

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[1] *Baroda Report*. p. 76.

Administration on the national level. It should be a part of the National Council of Educational Research and Training.

TEACHER EDUCATORS. — With the advent of the higher secondary schools, it has became necessary that the academic preparation of secondary training college instructors is higher than what is at present, since these teachers are expected to be M.As. or M.Scs. But the majority of Special Method instructors do not possess the Master's degree in their specific fields, and they fail to give necessary guidance to their students.

It may be noted that a training college needs two types of teachers: the first type for general subjects, and the second for Special Methods. While the teachers for general subjects should have at least a Master's Degree in Education, the Special Method instructors should possess a high degree in the subject that they are to teach in addition to the B.Ed. degree.

Similarly the professional preparation of the instructors for elementary training institutions is not adequate. The majority of them possess the B.Ed. degree, which has not at all been designed for elementary education. It is thus necessary to institute a post-B.Ed. diploma course of a year's duration aiming at the specific preparation of elementary teacher educators.

RESEARCH AND PUBLICATIONS. — The Secondary Education Commission has remarked, "The training college, should, in essence be not merely a college for training teachers, but an institution for research-work in all aspects of pedagogy."[2] The researches may be conducted by members of the staff of teachers colleges independently or in collaboration with teachers

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[1] *Ibid*. p. 81.

[2] *Baroda Report*. p. 86.

from schools. It may also take the form of investigations by advanced research students under the guidance of the members of the staff. Some of the suggested topics for research are:

1. Experimental work in curriculum construction;
2. Organisation and Administration;
3. Teaching personnel, e.g., the problem of the load of work of teachers;
4. Improvement of instructional techniques and methods;
5. Psychology of the Indian child, e.g., backward, gifted, delinquent children, etc.;
6. Testing and Guidance; and
7. Educational Sociology.[1]

There is also a serious shortage of professional literature appropriate for teachers and teacher educators. Suitable books in Indian languages are yet to be written; those which have been published have borrowed western ideas unsuitable to this country. Books written in foreign languages have not been written from an Indian point of view. Even a casual study of the literature available in English on the problems of Indian education will make the point clear. Journals of Indian education are very few, and there are hardly two or three magazines on school curriculum. Thus the production of literature for teachers and teacher educators is an urgent necessity of the day.

Recognising this dire lack of professional literature, the Baroda Study Group recommended, "Selected training colleges and research centres should be helped to assume the responsibility for the production and publication of such literature suited to Indian conditions and publish it in Indian

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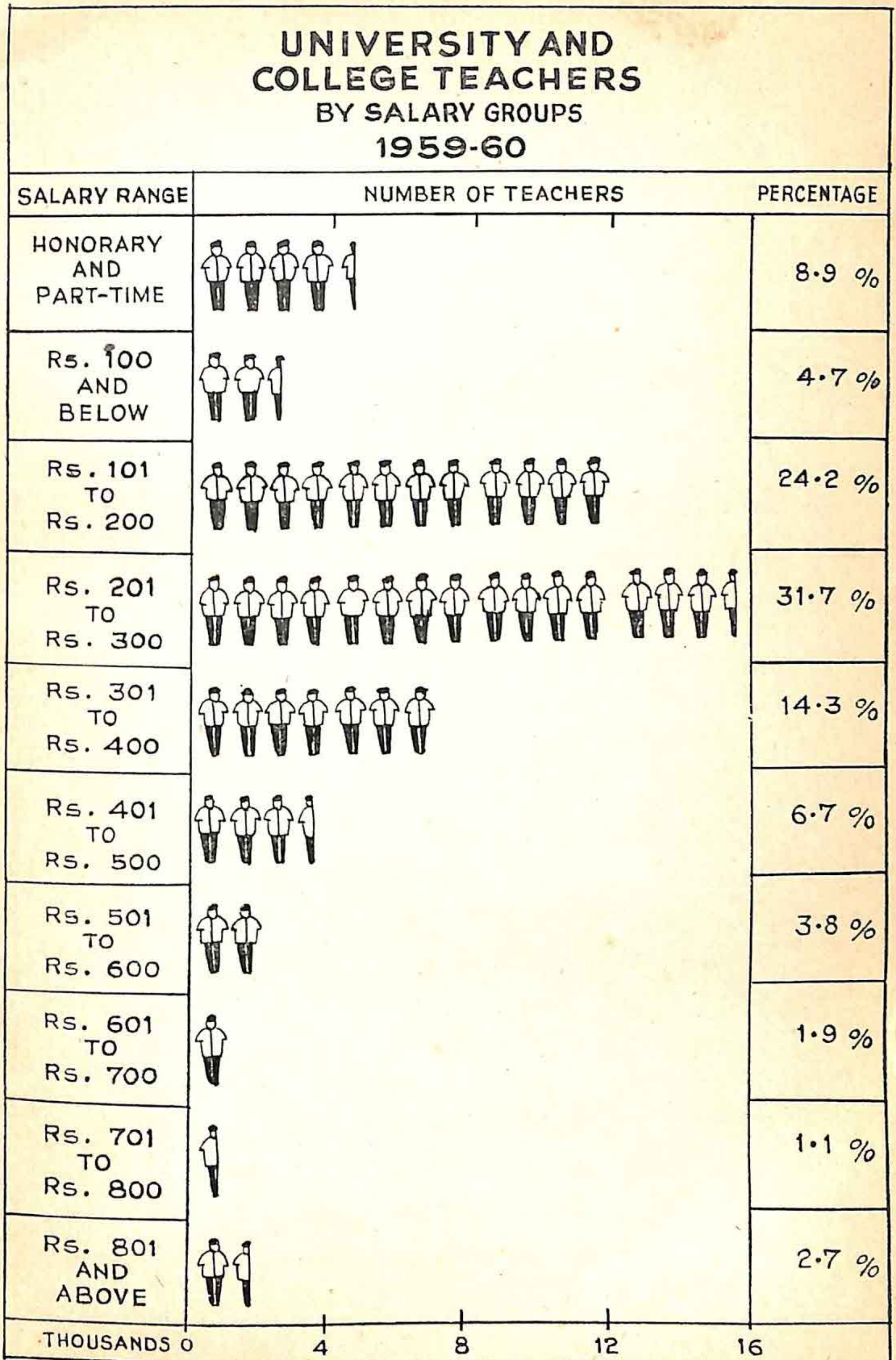
[1] Ministry of Education. *Report of the Seminar on Promotion of Research In Training Colleges. op. cit.* p. 27.

ILLUSTRATION 9



languages. The National Council of Educational Research and Training should be able to give not only financial but also technical assistance in this regard."[1]

PREPARATION OF COLLEGE TEACHERS. — The need for preparing college teachers is being increasingly recognised in the western countries. The problem was also discussed in the Vice-Chancellors' Conference on University Administration. Generally speaking, college teachers are interested primarily in their subjects and only secondarily in how they teach them. The majority of them are primarily talkers in the classroom. It has been facetiously remarked that a professor is one who talks in other people's sleep. Among the questions considered most important for college teachers are: (1) systematic organisation of material, (2) ability to explain clearly, (3) expert knowledge of subject, (4) ability to encourage thought, and (5) enthusiastic attitude towards subject.

In the U.S.A., there is a new ferment at work in advanced teaching. The scope of post-graduate and teacher education programmes is being widened so as to give the M.A.s and Ph. D.s an idea of new techniques of teaching. Short courses are also being run for college teachers, and experiments and researches are being made to make various teaching methods more effective, viz., the lecture, class-room discussions, seminar and workshop practices, outside reading, community and other off-campus experiences, examination and evaluation procedures, research techniques, use of audio-visual aids, the application of laboratory methods, clinical techniques and the like.[2]

Many of our college teachers are raw and inexperienced, and their preparation can no longer be neglected. The problem has attracted the attention of some of the Indian universities. The Teachers' College, Mysore conducted a short-term course for about 75 college teachers in 1951.[1] Since 1954 the Faculty of Education and Psychology, Baroda, is running a short seminar annually for university teachers. The programme includes: (1) teaching methods, (2) student counselling, (3) examination techniques, (4) preparation and maintenance of class-records and (5) general education.

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[1] *Baroda Report*. pp. 35-36.

[2] F. Kelley, ed. *Improving College Education*. Washington, American Council on Education, 1951. p. 5.

LACK OF COORDINATION. — Lastly, there is an urgent need for a better co-ordination in the activities and administration of training institutions. For example, a good deal of confusion exists about the nomenclature of different degrees, diplomas and certificates — M.T., M.Ed., B.T., B.Ed., L.T., C.T.,T.C., T.D., Dip. Ed., S.A.V., and so on. There is a confusion about institutions. While in some States, the college is an institution training either primary teachers or middle school teachers, in others a college besides preparing undergraduates for primary and middle schools also trains graduates. In a majority of States, the college is of post-graduate standard and trains teachers for high schools only.

Such a diversity is confusing and calls for a uniform organisation of teacher education, a proper co-ordination of courses and, if possible, also a uniform nomenclature. Even in the field of advanced research-work, where there is a very limited output, experiments and investigations overlap. This is why the University Education Commission felt it necessary to organise these researches on an all-India basis.[2]

There is some confusion regarding the conduct of training programmes also. In some States while the universities grant post-graduate and under-graduate teaching diplomas or certificates, in others the State Education Department does this function. For avoiding this confusion, the Secondary Education Commission rightly suggested that:

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[1] *Proceedings of the Second Conference of Training Colleges in India*, 1951. pp. 57-58.

[2] *University Education Commission's Report*. p. 216.

> Graduate teacher training institutions should be recognised by and affiliated to the universities which should grant degrees, while the secondary grade training institutions should be under the control of a separate Board appointed for the purpose.[1]

STATUS AND PROSPECTS OF THE TEACHER

The Present Position

THE TEACHER'S IMPORTANCE. — The teacher is of paramount importance in a national system of education. Building and equipment are important. So are curricula, books and teaching methods. But no other aspect of education is so vitally significant as are the men and women who conduct the schools — the teachers. It is they who must make the most of the existing opportunities and conditions. It is they who develop and man the curricula. It is they who select, employ and interpret the books, maps, films, recordings and other aids to instruction. Above all, it is they who, day in and day out, year in and year out, influence, by their conduct and behaviour, India's boys and girls.

The quality of teachers is — or shall be — a matter of deepest social concern. This was fully appreciated in Ancient India, and the *guru* occupied the highest position in the Indian society. He was revered by kings, princes, warriors, statesmen, politicians and businessmen all alike. The glory has now vanished. Today, the teachers are the most undervalued class in the Indian community.

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[1] *Secondary Education Commission's Report*. p. 185.

THE NUMBER OF TEACHERS. — The following table will give a clear idea about the number of teachers, men and women, working in schools of India today:

TABLE 53

Number of School Teachers in India 1962-63*

Type of Institutions	Men		Women		Total	
	Trained	Un-trained	Trained	Un-trained	Trained	Un-trained
1. High/Higher Secondary/ Multipurpose/ Post-Basic Schools	1,78,897	1,02,115	58,178	20,482	2,37,075	1,22,597
2. Middle/ Senior Basic Schools	2,17,411	98,747	78,178	25,408	2,96,589	1,24,155
3. Primary/ Junior Basic Schools	4,34,000	2,47,329	1,05,282	40,379	5,39,282	2,87,708
4. Pre-primary	373	299	2,618	1,972	2,991	2,271

* Ministry of Education. *Selected Educational Statistics*, 1962-63 (Unpublished). p. 2.

Thus there are 16,75,751 teachers in schools of various types in the country, of whom one-sixth are ladies. The percentages of trained teachers at the secondary and primary stages are 66 and 75 per cent. respectively.

PAY SCALE. — The pay scales of teachers vary not only from State to State but even within the same State they differ in schools under different managements. In some States, the minimum monthly salaries are as low as Rs. 25/- for Passed Primary School Certificate, Rs. 40/- for Passed Matric and Rs. 80/- for Graduate teachers.

The salary of teachers is a national scandal, and the majority of teachers get less than a labourer or a domestic servant.

The chances for their future improvements are also very rare. The headmaster of a primary school does not draw more than Rs. 120/- p.m., and the ambition of a graduate teacher is fully realised by the age of fifty when he occupies the proud position of a headmaster on a monthly salary of Rs. 200/-. It can thus be appreciated that, when teachers are so poorly paid, it is impossible for the best men to adopt the profession, unless they have an enthusiasm which leads them to put aside considerations of personal comforts. It is no wonder that most of our teachers are teachers not because it is their chosen calling, but because they could not secure employment elsewhere.

The majority of teachers in India are forced to seek other ways of supplementing their income, because they are unable to live on their salaries. Most of them undertake as many tuitions as they can, and the school managers tolerate this because they cannot pay suitable salaries. Naturally, the energies of most of the teachers are sapped and they hardly find any time to prepare their school lessons. Class teaching tends to be dull and lifeless, and only the bell rescues the class from boredom and the teacher from running dry.

During recent years, the Government of India has directed the State Governments to increase the salaries of teachers. The Centre is also giving assistance to State Governments to increase the salaries of teachers at all levels — primary, secondary and university.

Besides the economic hardship, the security of service is absent in most of our private institutions. No doubt, some private schools are mere commercial ventures and the tendency is to run them cheap. Teachers of such institutions often fail to find out who is the master and whom they are to serve. They are made victims of all sorts of malpractices, and naturally they lose their peace of mind. The following extract from an official report sums up the different types of malpractices to which an innocent teacher often falls a victim:

> The graded scales of salary exist in name only, and increments depend solely on the whims of the managing committees or on the personal influence of the teacher. Startling variations exist in the salaries of individuals, and nepotism and favouritism are reported to be rampant in some schools. The maximum amount of work is extracted from the teachers with the result that no time is left for extramural activities. Dismissal from service on flimsy grounds and as a result of personal prejudices are still not quite uncommon. The so-called voluntary contributions to the managing committee funds by forcing teachers to sign the acquittance roll for a higher sum than is actually received is reported to be a common evil.[1]

Recruitment And Selection Of Teachers

INTRODUCTION. — The teacher is the most important factor in the reconstruction of our education, but teaching is not everybody's cup of tea. Ruskin says, "Teaching is a painful, continual, difficult work to be done by kindness, by watching, by warning, by precept and by praise, but above all — by example."

INDIA'S NEED. — At present only about 9 lakh of teachers are available in our primary schools, but it has been estimated that the country will need 150 thousand more teachers to serve the additional enrolment in our primary schools during the Fourth Plan period. The rapid increase in the number of secondary schools and their enrolment during recent years has caused acute shortage of teachers for these schools too. This shows an urgent need for recruiting a large number of able young people to the profession.

TWO-FOLD ASPECTS OF RECRUITMENT. — Recruitment has two aspects: (1) quantitative — supply of an adequate number of teachers, and (2) qualitative — to furnish the schools with the type of teachers they need, i.e., selection. But as long as the demand for teachers continues to exceed supply, it is obvious that effective process of selection cannot operate.

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[1] *Progress of Education in India*, 1932-37, Vol. I. p. 103.

Thus the recruitment should be based on the kind of teachers required and upon carefully calculated estimates of the numbers needed in each category and at each stage. It will, therefore, be necessary for each and every State to make such estimates, which should be made for not less than five years in advance and should be revised annually.

METHODS OF RECRUITMENT. — There seems to be no uniform system in different States in regard to the recruitment of teachers. The Secondary Education Commission holds that in the case of State schools, the Public Service Commission should select teachers in consultation with D.E. and that in all privately managed institutions and in schools managed by Local Boards there should be a small Selection Committee entrusted with the responsibility of recruiting the staff with the headmaster as an ex-officio member.[1] Besides this, a State Advisory Committee on Teacher Recruitment may be set up in every State. The Committee should find out means and methods by which young people can be recruited to teaching so as to meet the estimated needs of the schools.

KINDS OF RECRUITMENT ACTIVITIES. — Based on the observations of the current practices in a number of advanced countries, the International Team of Experts suggested the following recruitment activities which various types of educational institutions and other groups might undertake:

1. *Secondary Schools.* — (1) Organised guidance programmes including career conferences, (2) opportunities

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[1] *Secondary Education Commission's Report.* p. 164.

for interested students to observe and assist teachers in their respective schools, (3) inclusion of an elective course in Education in the high school education, (4) regular inclusion on the school's bulletin boards of displays or exhibits of materials dealing with vocations *including teaching*.

2. *Colleges and Universities.* — (1) Inclusion of an elective course in Education, (2) utilisation of student counselling and advisory service, (3) provision of opportunities for and active encouragement of service in nursery schools, night schools, community centres and recreational programmes.

3. *Teacher Training Institutions.* — (1) Active cooperation on the part of the faculty with high schools, collegs and universities in the programme of teacher recuritment, (2) activities designed to furnish data for the guidance of the State Advisory Committee and others, (3) organisation of a "College and University Cooperation Plan" aiming at recruiting graduates for such institutions.

4. *Organised Professional Associations.* — (1) Broadening and strengthening of the professional organisations of teachers in order to achieve unity of purpose and effort, (2) active and continuous efforts to improve professional standards, e.g., group conferences, publications, study clubs, experimentation with methods and materials, in-service training programmes, (3) organised efforts to improve the economic and social status of teachers, (4) provision of scholarships to competitively chosen young people desiring to enter the teaching profession. Assuming that teacher trainining is tuition-free, such scholarships should furnish maintenance costs, (5) preparation, publication and dissemination of materials designed to present the teaching profession to young people.

5. *District and Local Boards of Education, Boards of Managment and State Departments of Education.* — (1) Provision of suitable stipends for teacher trainees, (2) provision of adequate guidance and counselling service in the schools

under their jurisdiction, (3) encouragment of in-service growth of teachers.

6. *Organised Lay groups.* — (1) Active efforts to organise parents and other citizens in support of schools and the teaching profession, (2) making available to the support of teacher recruitment activities the facilities of the press, the radio and other channels of public information and communication.[1]

SELECTION OF TEACHERS. — It should also be borne in mind that a person once selected as a teacher may prove unfit later. His preliminary selection should also not entitle him to be a permanent member of the teaching profession. In fact, the process of teacher selection should be considered as a continuous process as operating four levels: (1) initial selection, (2) selection for training, (3) selection during the period of probation as a teacher and (4) selection of serving teachers for promotion to higher grades of service.

It should always be realised that there are certain physical, intellectual, social and emotional qualities which are prerequisites for success in teaching. Several studies have been made of personal and professional traits of prospective teachers and teachers in service. A careful analysis of all the researches and results shows that successful teaching depends on seven factors. These along with the traits or qualities involved in each of them are given below:

1. Teacher's personal equipment — personal appearance, refinement, pleasant manners, industry, enthusiasm, drive, initiative, open-mindedness.

2. His professional equipment — knowledge of psychology and aims, contents, methods and materials of instruction, skill and interest in teaching.

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[1] *Report of the International Team of Experts.* pp. 20-22.

3. His cultural background and academic equipment — knowledge of subject taught and general information, cultural background, etc.

4. His physical equipment — health, physical energy, vitality, freedom from physical defects, etc.

5. His mental equipment — intelligence, mental alertness, judgment, common sense.

6. His emotional ability — self-control, mental balance, tolerance, freedom from unreasonable beliefs, prejudices, etc.

7. His social adjustment — knowledge of social conventions, ability to get on with others, good moral conduct, etc.

Teacher Welfare

Whatever may be the recruiting programmes or selection processes, the teaching profession will not be able to attract and retain a sufficient number of competent teachers unless their economic, professional and social status is improved.

ECONOMIC STATUS. — The pay scales of teachers of this country are "a scandal and a disgrace". By paying the teachers like *coolies*, society shows no respect for the teaching profession. By keeping them discontented, the very wells of learning are being kept dry. It should be the policy of the Centre and the States to bring the economic level of teachers up to that of equally qualified persons carrying out their public work of comparable responsibility. This claim is fully recognised but has never materialised.

The Secondary Education Commission has made the following recommendations for improving the economic status of teachers:

1. Implementation of such scales of pay as will meet in a fair and just manner the varying cost of living;
2. Introduction of Pension-cum-Provident Fund-cum-Insurance;

3. Free medical treatment;

4. Free education to teachers' children;

5. Introduction of a scheme of co-operative house-building societies, providing teachers with quarters near the school; and

6. The extension of the age of retirement to sixty.[1]

PROFESSIONAL STATUS. — Next to the perennial question among teachers: "How much do you get?" is another often-asked question "How long have you been teaching?" As De Young says, "Because of the large turnover, teaching has been called a procession rather than a profession."[2] Ill-treatment of teachers on flimsy grounds is quite common in India, and it is necessary that the interests of teachers are properly safe-guarded. The State Department of Education in consultation with teachers' associations and other interested parties should draw up tenure systems that will give teachers in non-government schools security of tenure on a par with that of their colleagues in government service. Arbitration boards or committees should be set up to look into the appeals and grievances of teachers and to consider matters relating to suspension, dismissal, etc.

The Secondary Education Commission points out the other side of the question, i.e., the duty of teachers to set a high example of personal and professional integrity.[3]

SOCIAL STATUS. — Given proper economic and working conditions and a high professional status, teachers will obtain adequate social standing without special measures directed to that end. Teachers of India should also appreciate that they are not only the builders of the citizens of tomorrow, but they can also be the guides, philosophers and friends of the Indian masses. One of the great factors which developed Soviet Russia is the teacher, and that is why he is esteemed highest in the world. As Beatrice King says:

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[1] *Secondary Education Commission's Report*. pp. 184-185.

[2] De Young. *American Public Education*. New York, McGraw Hill Book Co., 1950. p. 375.

[3] *Secondary Education Commission's Report*. p. 168.

> His house is the centre of progressive ideas, the unofficial advice bureau on every conceivable subject from crop rotation to naming the new baby. Where such a relationship has been established, neither the teacher's cottage nor the school will be short of their winter fuel. Neither the school nor the teacher will lack that attention and help from the community which makes all the difference to the life of the school and the teacher.[1]

It is interesting to note that more than 122,000 teachers have been elected members of the Supreme Soviet of the USSR, the Supreme Soviets of the Union and Autonomous Republics, and the local Soviets. About 270,000 government decorations have been awarded to teachers for long, peerless services.[2] The Union Education Ministry of this country has also realised the value of instituting special awards for primary and secondary school teachers with a view to recognizing the 'good work' of those who normally do not come in for receiving the Padma Bhusan and Padma Shri decorations. In fact, the most cheerful news during the Republic Day celebrations of 1959 was the announcement that 32 teachers of "outstanding merit" had been accorded State recognition when Dr. Rajendra Prasad honoured them with national awards. This act will help to take away some of the bitterness at the general neglect of the teaching profession, which has characterised the post-independence era. At a time when even film stars have been recognised and honoured by the State, it seemed paradoxical that few people thought it worth their while to bother, about, much less to honour, the teaching profession.

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[1] Beatrice King. *Russia Goes to School*. London Heinemann, 1948. pp. 95-96.

[2] M. Deineko. *Public Education in the USSR.*, 1956. p. 120.

CONCLUSION

Teachers should also learn to safeguard their own interests. The question of improving the status and salaries of teachers lies in their own hands, and they need not wait for the authorities to look after them. It is their duty to organise themselves into professional guilds or associations. The paucity of such organisations in a vast country like India is deplorable, and there are hardly half a dozen teachers' journals which report about experiences of teachers. Several teachers' associations have either been dismembered or have become defunct, and a number of educational journals have been stopped on account of the few set-backs at the initial stages.

Teachers should have fortitude and must learn to stand on their own legs. Other professional organisations are springing up daily and asserting themselves both in the eyes of the public and Government. Unfortunately teachers are lagging behind. In these days of exploitation, nobody is prepared to take up the cause of teachers, unless they learn to stand on their own legs. "Union is strength" should not be merely preached in the classroom, but should be the first maxim to be practised in life also. It is thus necessary for teachers to shake themselves free from a spirit of resignation and to combine themselves into a net-work of educational associations with mutual relationships and with a central tie. Only when they are so organised, they can make their influence felt, insist on suitable conditions of employment and be saved from external interference with their special work. "They should," as Dr. Zakir Husain said, "study their own problems and difficulties and find their own solutions."[1]

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[1] Zakir Husain. 'Inaugural Address,' *Bihar State Seminar on Education*. February, 17, 1958.

CHAPTER X

MISCELLANEOUS BRANCHES

I. PRE-PRIMARY EDUCATION

INTRODUCTION. — During recent years, educationists and psychologists have concentrated a good deal of attention on the problems of the pre-school child. It has been fully appreciated that the first six years of an individual's life are plastic and impressionable. It is during these years that the foundations of habits of mental, moral or physical health are laid. Most of the mental and emotional disturbances that arise in later childhood or adolescence owe their origin to an unfavourable or improper adjustment of children during their pre-school period. Thus early childhood is of great importance.

WHAT IS PRE-PRIMARY EDUCATION? — Pre-primary education extends from the birth of the child to his entrance, at the age of five or six, into the first year of the primary school. It includes parental education, pre-natal and post-natal care, and early infancy training. Strictly speaking, this education is not confined to the child care in a school, at some fixed hours, for some years of early childhood. "The real education," as Gandhiji said, "begins from the conception, as the mother begins to take up the responsibility of the child."[1]

DEVELOPMENT OF PRE-PRIMARY EDUCATION IN THE WEST.— The movement of early childhood education outside the home commenced with Froebel, who originated the kindergarten. He established the first kindergarten at Blankenburg, Germany in 1837. The methods and materials of this sysem introduced the ideal of understanding the child mind through play. A Kindergarten generallye nrols children at the age of four.

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[1] As quoted by S. Narulkar. *Plan and Practice*. Sewagram, Hindustani. Talimi Sangh. 1950, p. 2.

Then came the nursery schools, which were first started in slum areas for the children of those mothers, who used to go out for work. Today, they are quite popular in every society. As Margaret McMillan has remarked, "Nurseries and Nursery Schools are wanted simply because little children want nurses."[1] The nursery schools are generally meant for children in the age-group 2-4.

Finally, came the Montessori school in the present century. Its founder, Dr. Maria Montessori, worked out her methods among the poor as well as abnormal children in slum areas. She prepared plentiful of scientific apparatus. These have greatly simplified treaching.

WHAT IS A PRE-PRIMARY SCHOOL? — While pre-primary education begins from conception and continues till the child's compulsory schooling begins, a pre-primary school generally takes care of children in the age-group of two to six. It adopts one or all the three systems described in the preceding section. It has the following aims:

1. To provide healthy external conditions for children such as light, sunshine, space and fresh air;
2. To organise a healthy, happy and regular life as well as continuous medical supervision;
3. To assist each child to form for himself wholesome personal habits;
4. To give opportunity for the exercise of imagination and for the development of many interests as well as skills of various kinds;
5. To give experience of community life on a small scale where children of similar as well as varying ages work and play with one another; and
6. To achieve a real unity with home life.

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[1] Margaret McMillan. *The Nursery School. London, Dent,* 1930. p. 5.

Thus the pre-primary school looks after the physical, intellectual and social needs of young children. It provides a healthy environment and takes care of them when they are most susceptible to diseases. It also prepares them for compulsory education with well-formed habits and alert minds. Formal instruction is almost absent in such an institution, because its daily programme consists of happy and joyous pursuits of activities in which the distinction between work and play disappears. The teaching methods of Froebel or/ and Montessori are practised, and great importance is attached to play, speech-training, story-telling, acting, rhythmic movements, singing, dancing, nature study and handwork. A fixed daily routine is followed, and children are allowed to sleep or take rest or partake of their meals at regular intervals. These measures help the pre-school child to develop in himself habits of personal hygiene and desirable attitude towards his individual self and his fellow brethren.

PRE-PRIMARY EDUCATION IN INDIA. — Pre-primary education is still in its infancy in this country. The start has just been made, but the movement appears to be popular. In 1951-52, there were 330 pre-primary schools in the entire country. By 1960-61, the number rose to 1,909.[1] Thse institutions are known by different names: nursery, infant, pre-primary, *balmandir*, kindergarten, Montessori and the pre-basic school. They cater to the children of the age-group 3-6 and barring a few which are run on the orthodox Montessori or kindergarten lines, most of them combine the play-way method with some of the activities of the Montessori and kindergarten schools.

The majority of the institutions are, however, mere classes attached to some schools and are situated in urban areas. The

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[1] *Education in the States*, 1960-61. p. 3.

Government maintains only a few institutions of its own, but it encourages private agencies on a grant-in-aid basis. A large number of private schools or classes are not properly conducted—equipment is poor, the staff is untrained, and records of children's health, interests and habits are seldom maintained. In short, pre-primary education in this country is faced with the following difficulties today: women teachers are not available, there is not adequate provision for training pre-primary teachers, scientific research bureaux and child laboratories are unknown in the country, and there is a dearth of suitable juvenile literature.

A NEW MOVEMENT: *Early Attempts.* — The importance of pre-primary education has been fully recognised in our country. The stay of Mme. Montessori in India (1940-48) gave a great impetus to the movement. Hundreds of teachers trained in her short and long intensive courses have opened their own classes or schools in cities or big towns. Our latest reports on education have also recognised the value of pre-primary education. The CABE's Second Committee on Basic Education pointed out that primary education should be supplemented by generous provision of nursery schools or classes for children below the minimum age of compulsory education. The Sargent Report went a step further and pointed out, "It is the duty of the State to come to the rescue, for the sake both of its future citizens and of those that bear them, by providing bright, well-equipped and well-staffed nursery schools, where the children can be properly looked after while their mothers are at work." Accordingly, the Report recommended the provision of 10,00,000 free places in nursery schools or classes for children in the age-range of 3 to 6 years. While presenting its fourth report to the Lok Sabha on March 13, 1959, the Estimates Committee with Shri Balvantrai Mehta as its Chairman expressed regret that "there is not even an All-India policy" in the matter for the guidance of the States and organisations and institutions in the field of pre-primary education. According to the report, the Committee "feels that the most important and crucial period of life of a child is being left almost entirely to be shaped in a haphazard state by a number of uncontrolled and uncoordinated bodies which are not governed by any uniform policies laid down by the Government in this behalf." The Committee is of the opinion that some guiding principles should be thought out over this matter in consultation with the best educationists and psychologists in the country.

Pre-Basic Education. — A new outlook in pre-primary education has been given by the experiment in pre-basic education, which begins from conception and continues till the age of seven. It is divided into four stages: (1) from conception to birth, (2) from birth to two and a half years, (3) from two and a half to four, and (4) from four to six. The first two stages are for the mother and the child together; and this is why wherever there is a pre-basic school, there is some arrangement for a child welfare centre advising the mother about her health and the health of her child.

At two and a half years' age, the child attends the pre-basic school and continues till he is seven. The school is more or less part of the child's home, and the teacher has to give much time to the child's home and parents. Attention is paid to the following aspects of the child's training: (1) physical nurture, (2) medical care, personal and community cleanliness, (4) self-help and self-reliance, (5) social training, (6) educational creative activities, (7) speech training and children's literature, songs, stories, dramas, dialogues and conversations, (8) development of mathematical sense, (9) development of the scientific spirit and nature study, (10) music and rhythm including voice production, and

(11) art.[1] Instruction is imparted from life situations or actual conditions in which the child lives.[2]

Nai Talim also emphasises the relation between pre-basic and adult education, since a child in his early childhood is inseparable from his parents and his home surroundings. As Smt. Shanta Narulkar says:

> When we take in hand the education of child, we must seek the cooperation of the parents first. They must help us in the work of their child's education with a full knowledge of what is necessary for the child's education.[3]

The Co-ordination Method. — The ideology of the pre-basic education is influencing the activities of pre-primary schools of this country. While some still draw their inspiration from the kindergarten or the Montessori system, others are adopting the pre-basic ideology, and a few are experimenting to bring about a co-ordination of the basic as well as the Montessori methods. In this connection, special mention must be made of the Nootan Bal Shikshana Sangh at Bhavnagar, which is making experiments for formulating a pre-school system on the basis of a co-ordination between the freedom technique in the Montessori system and the realism of the basic system.

CONCLUSION. — The idea of providing pre-primary education to as many young children as possible is indeed very sound, but two difficulties will have to be encountered immediately, viz., lack of money and dearth of suitable teachers. The provision for an adequate number of nursery schools in our country is yet a distant dream, especially when enough money is not forthcoming for universal compulsory primary education. Yet the difficulty will have to be solved on its own merits. We should realise that the problems of a country deserve to be tackled in its own way, and we need not adopt western ideals for solving each and every problem of ours. A vast country like ours presents a multitude of social, economic and educational problems, and a single line of action cannot solve the proposal under consideration. The problem of pre-primary education will have to be tackled through multiple lines of action.

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[1] *Report of the Fifth All-India Basic Education Conference*, 1950. pp. 102-103.

[2] Narulkar. *op. cit.* p. 26.

[3] *Ibid.* p. 8.

Firstly, India consists of a number of towns and a network of villages. Rural India, where the distance in space is a great hindrance in organising pre-school institutions, can wait for better times. But the needs of urban areas demand immediate care and attention. In this connection, the distinct requirements of the rich classes, the working classes and the middle classes will have to be separately looked into. Wealthy persons can be left to themselves, as they can either engage governesses or organise the best type of nursery schools for the education of their young children. But the needs of children of poor workers cannot be overlooked and a sufficient number of open-air nurseries should be started in slums and industrial areas. The basic needs of all children, in addition to food and clothing, are fresh air, sunlight and ample space in which they may disport themselves and feel their life in every limb. These opportunities should not be denied to children with poor means, since a nation's children are its most precious asset. The nursery school with its many-fold boons can alone give the desired relief.

So far as the middle classes are concerned, we should concentrate our attention on parental and family-life education. After all, the child's first teachers are his parents, hence they should have definite knowledge and guidance in their responsibilities and duties. This information may be offered to young people long before they marry and have children, while they are in high schools or colleges. It can also be given to adults who are already parents and may embrace parental and post-natal care as well as child study.

The new social education programme of our country should give a knowledge of "Wise Parenthood" to the illiterate adult. This has been fully appreciated by Nai Talim, which begins with adult education, i.e., the education of the parents and the community. The programme includes sanitation and health, and women's problems (the care and education of the child involving pre-basic and adult work).

Thus we should concentrate a good deal of our attention on the improvement of our homes through proper education of parents. The foundations of life are laid in the home, which is the citadel of early childhood.

II. ADULT EDUCATION

Introduction

IMPORTANCE. — The people of India comprise 15·1 per cent. of humanity, and numbered, in 1961, 439 million. Of this vast population hardly 23·7 per cent. are literate. Literacy among women is only 12·8 per cent., while among men it is 33·9 per cent.

Thus the most urgent national need of our country today is the education of adults. With a colossal illiteracy of 76·3 cent., it is really impossible to achieve anything remarkable by way of progress — social, economic or political. An adult is again the chief unit of society, and the advancement of a family mainly depends on him. Educated adults will undoubtedly be in sympathy with the education of their children and with the new developments in education as well. With the attainment of independence, the education of illiterates of this country has become very necessary. By granting adult franchise, the Constitution of India has created an electorate; which is estimated to be one-twelfth of the world's population. Nearly 175 millions went to the polls for the first elections in 1952. Thus if the education of children is important for the future welfare of the State, education of adults is very necessary for the very existence of democracy.

WHO IS AN ADULT? — "Adult" and "adult education" are defined in different ways in different countries so as to suit the state of education in their own situation. In England, the Education Act of 1944 provides for full-time compulsory education till the age of fifteen and for part-time education till the age of eighteen. All persons above that age are considered as adults. In the U.S.A. an adult is defined as a person of approximately twenty years of age and even older. For our sake, in India, we may define the age for adulthood at a few years higher than that at which compulsory education ends. In Indian States where compulsory education is provided up to the age of eleven, fourteen may be taken as the age of adulthood.

WHAT IS ADULT EDUCATION? — The term 'Adult Education' is defined in different ways by different writers. Bryson includes in the term all activities with an educational purpose, carried on by people, in the ordinary business of life, who use only part of their energy to acquire intellectual equipment. Ernest Barker observes that adult education is given on a part-time basis and given, therefore, concurrently with work and the earning of a living. These definitions and descriptions show that "adult education" may be defined very broadly so as to include all instruction, formal or informal, imparted to adults.

In India, adult education has two aspects: (1) Adult literary, i.e., education of those adults who never had any schooling, and (2) continuation education of the adult literate.

From Adult Education (Adult Literacy) to Social Education

EARLY POSITION. — Attempts to impart adult education are of recent origin in this country. It began with the termination of the World War I, which ushered in an era of political awakening. But it was started on a very modest scale, was confined to a few progressive parts of the country, and all efforts were concentrated on literacy.

With the advent of popular ministries in seven out of eleven provinces in British India in 1937, the movement was accelerated. Owing to the recommendations of the Manshardt Committee. (1937), the scope of adult education became comprehensive by the addition of some amount of civic education, although literacy continued to occupy the central position.

This spirit of activity was interrupted by the outbreak of the World War II, and it was not till after independence that the development in programmes of adult education was resumed

A NEW CONCEPT IN EDUCATION — With the advent of independence, our entire outlook towards adult education has changed. In his address at the fifteenth meeting of the CABE., held in Allahabad in January 1949, Maulana Abul Kalam Azad emphasised that adult education should not be limited to making people merely literate. It should also include education so as to prepare every citizen to play his part in a democratic social order. Since then adult education is known as "social education" in this country. It has three aspects: (1) the spread of literacy among grown-up illiterates; (2) the production of an educated mind in the masses in the absence of literary education; and (3) the inculcation of a lively sense of rights and duties of citizenship, both as individuals and as members of a powerful nation.[1]

THE SOCIAL EDUCATION PROGRAMME. — The new concept of social education is embodied in a five-point programme to provide, first, literacy; second, a knowledge of the rules of health and hygiene; third, training for the improvement of the adult's economic status; fourth, a sense of citizenship with an adequate consciousness of rights and duties; and, finally, healthy forms of recreation suited to the needs of the community and the individual.

The Social Education Movement

INTRODUCTION. — Maulana Azad's declaration gave a new outlook and impetus to the adult education movement in the country. Since 1948-49, several plans have been launched in the country to implement the new programme of social education. These include: (1) administration, (2) social education institutions, (3) training of social education workers, (4) seminars and (5) post-literacy facilities.

ADMINISTRATION. -- The Union Ministry of Education initiates social education schemes. It does this work in cooperation with the Planning Commission and sometimes Community Projects. In the Government of India various ministeries like Labour, Railway and Defence have their own programmes for their employees.

The function of the Ministry of Education is mainly that of coordination, guidance and financial assistance. Coordination is done in two ways. First, reports of work on the schemes initiated by the Ministry are called for from State Governments. Reports of social education work in general in various States are also called for by the Centre. Secondly, through the Central Advisory Board of Education and sometimes through *ad hoc* conferences and meetings, the various State Governments are brought together to consider common problems in the field of social education.

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[1] *Education in India*, 1947-48, Vol. I. p. 113.

Another important development in the field of social education was the appointment of a standing committee of the Central Advisory Board of Education on Social Education to advise the Central and the State governments on the problem of social education in India. In their 23rd meeting, the CABE recommended the setting up of a National Fundamental Education Centre. Its main functions are: (1) to train the key-personnel of social education, e.g., District Social Education Organisers, etc.; (2) to carry out research and evaluation in the field of social education; (3) to conduct experiments in the production of better type of material and equipment for social education; and (4) to act as clearing house of ideas and information pertaining to social education.[1]

The Union Ministry also gives grants to voluntary organisations and State Governments for their social education work. It gives financial assistance for research projects, and the production of suitable books for neo-literates. It also sponsors or aids seminars in the field of social education.

The Central Social Welfare Board, which was set up in August 1953, stimulates and co-ordinates the activities of the various bodies working for social welfare. It also gives financial assistance to deserving organisations. This statutory body is autonomous but forms a part of the administrative set-up of the Union Ministry of Education.

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[1] *Education in India*, 1955-56, Vol. I. p. 268.

The State Governments have at present an almost diarchical system in social education. The Education Departments continue their social education work along the old lines, while the Community Projects have taken up with vigour the new aspects of social education. The diarchy has to be resolved and several State Governments are making a serious effort to bring social education work under one authority, if not under one administration.

The administrative set-up for social education in a State generally includes — a special officer at the headquarters, and divisional and/or district organisers. These officers work through advisory committees at different levels — the State, Region, City or District. While the first two types of committees are generally advisory in nature, the city and district committees are expected to exploit local enthusiasm by way of personal contact and intensive programmes in favour of social education and particularly to organise more and more social education centres in their respective areas and advise Government regarding various problems related to social education.

INSTITUTIONS. — The five-fold role of social education defines its objectives and programme. The objectives can be achieved only by building up suitable institutions, which transmute the desires and efforts of individuals into the more lasting forms of life cherished by a community. The following are the institutions which social education workers strive to build in the country.

Literacy Classes. — The early institutions were literacy classes. Till 1953, they numbered about 40,000 imparting literacy to nearly 400,000 people annually. The Community Projects have added to these figures considerably. During their first year of existence they added a stratum of nearly 7,000 classes with an enrolment of about 89,000. Up to December 1955, the Community Projects had run 75,000 literacy classes with an enrolment of over 600,000. This is indeed a significant contribution towards the problem of liquidating illiteracy.

Community Centres. — Sometimes literacy classes develop into follow-up groups and these into community centres. A community centre essentially provides a meeting place for the community. It serves as an information and recreation room, and provides facilities for arranging discussion groups. Some community centres also provide facilities for adults learning crafts and hobbies.

Youth Clubs, etc. — Youth clubs generally start as groups interested in games and sports. While, therefore, formally speaking, their work lies outside social education proper, yet they have a deeply social educative importance inasmuch as they teach youths new ways of group life. Some youth groups or youth clubs take on various functions in the life of the community. In the form of *Gram Raksha Dals* they are responsible for protecting the village against outside anti-social elements and obnoxious beasts. Under the name of Young Farmers' Clubs they have been responsible for undertaking agriculture or allied projects and have done some of the most remarkable work in the field, especially in the Punjab.

Mahila Samitees. — Each development block is given a woman social education organiser. She is expected to organise women in *mahila samitees* (women's clubs) to carry on as much as possible of the following programmes: (1) meeting of village women for *bhajans* (singing of hymns) and songs; (2) social functions and celebration of religious festivals; (3) talks and discussion groups for improvement of homes and child welfare; (4) introduction of smokelesss *chulahs* (hearths);

(5) knitting, tailoring and other craft work; (6) maternity welfare; (7) nutrition and balanced diet; (8) mother craft; (9) elementary household skills; (10) common medicines; (11) kitchen gardening and home economics; (12) home decoration and clean house drives; (13) literacy among women; and (14) games for women.[1]

Developments. — During recent years, there has been a rapid growth in the number and total enrolment of these institutions. This will be evident from the following table:

TABLE 54

Social Education 1955-56 to 1959-60

Year	Centres Classes Schools	Enrolment	Award of Literacy Certificates	Expenditure (Rupees in lakh
1955-56	46,091	1,278,827	545,221	96·80
1956-57	44,058	1,204,958	555,409	85·44
1957-58	45,961	1,206,630	519,218	90·51
1958-59	47,586	1,257,760	641,375	93·86
1959-60	51,736	1,369,811	737,006	113·06

Of 51,736 schools in 1959-60 as many as 21·0 per cent were managed by government, 2·5 per cent by local boards, and 76·5 per cent by private bodies. The distribution of expenditure in that year according to different sources was: government 85·6 per cent., local boards 5·1 per cent., and other sources 9·3 per cent.[1]

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[1] *Education in India*, 1959-60, Vol. I. p. 245.

The programme of these schools and classes includes:

1. *Education Activities:* Literacy classes, reading rooms, library-wall news-sheet commentary, book reviews, talks, discussion groups, debates, pictorial exhibitions, radio programme, etc.

2. *Cultural Activities:* Film shows, dramas, folk songs, folk dances, poetic symposia, community dinners and socials.

3. *Recreational Activities:* Indoor games, outdoor games, excursions.

4. *Arts and Craft Activities:* Sewing and cutting, knitting, embroidery, *newar* weaving, candle-making, cooking, laundry, etc.

5. *Social Services:* Civic drives, sanitation drives, slum clearance, literacy campaigns, etc.

TRAINING OF SOCIAL EDUCATION WORKERS. — In general, social education workers can be classified as follows: (1) Administrators (social education officers), (2) research workers, (3) field workers (supervisors, village field workers, local leaders) and (4) teachers.

The first two types of workers are educated in post-graduate colleges of education or social work. Their pre-professional courses in education, sociology, economics, psychology and research techniques provide the necessary back-ground for understanding the educational, social, economic and cultural life of the people.

The field workers are directly in charge of several social education centres. They receive their training in a Janata College or at some centre specially set-up for this purpose. The Janata College is an innovation. This institution is not meant to be a "college" in the ordinary sense, providing advanced education, but it is a centre of training — particularly training for local leadership — for the rural population in a selected area. The course covers a period of 4 months and includes specialised courses in handicrafts, improved methods of agriculture, animal husbandry, health and sanitation, organisation of co-operatives and *panchayats*. On completing their studies, students return to their village and carry out the programme of social education. Some community project village level workers also receive their training at such centres.

Short courses, covering a period of 2 to 3 months, are also arranged for teachers. These include instruction in adult psychology, methods of teaching adults and imparting general knowledge, and the use and preparation of audio-visual material.

SEMINARS. — Seminars and group discussions — organised on all-India, State, district and local levels—have now become regular features. Important problems of social education, viz., administration, grants, courses, production of literature, etc. are discussed in such meetings. Even the project of the Janata College owes its existence to the International Seminar of South East Asian Regions on Rural Adult Education for Community Action sponsored jointly by Government of India and UNESCO. The Seminar was held in Mysore in 1949.

POST-LITERACY FACILITIES. — The responsibility of social education does not end with issuing of literacy certificates, it should further provide post-literacy facilities for preventing the neo-literate from lapsing into illiteracy once again. For this, three things are necessary: (1) production of useful literature for adults, (2) use of audio-visual material and (3) library service.

The Government of India in cooperation with the State Governments have taken a few steps in this direction. Firstly, every year, prizes are offered for good books for neo-literates in every regional language. In 1960, 30 such prizes were announced. At the same time, prize-winning books are bought out in bulk as a form of encouragement to publishers. Secondly, apart from prize-books, good books for neo-literates in Hindi are purchased in bulk, the State and the Central Governments sharing the costs equally and the Central Government, in addition, paying the transportation and packing charges. Thirdly, an effort is made to train prospective authors through literary workshops. It is proposed to organise four such workshops a year. Fourthly, the Ministry of Education have their own programme for bringing out model social education literature, and assistance is given to State Governments to sponsor similar programmes. A National Book Trust has been set up to produce outstanding books at cheap cost and in large numbers in all the regional languages of the country. Regional Book Trusts will supplement the work of the National Book Trust.

Realising the importance of audio-visual education, the Government of India has established the National Board for Audio-Visual Education to co-ordinate the work being done in this field in the country and to advise the Central and State Governments on all matters relating to audio-visual education. Steps have also been taken to establish three film units at the Documentary Film Production Centre, Bombay for the production of special educational films under the auspices of the Ministry of Education. In addition, the Central Films Library of the Ministry has a circulating section.

Libraries have also an important place as a follow-up of literacy classes as well as an educational institution for the masses. At present the library service of the country is very poor. We have nearly 40,000 libraries in the country — most of them have small and stagnant collections of books and are attached to social education centres or other institutions. Between them they have hardly one book for every 50 of our people and not even ten persons read one book in the whole year.

Continuation Education

INTRODUCTION. — The education of a litereate Indian usually terminates with his formal schooling. The need for educating youths and adults out-of-school need be hardly stressed. Thorndike and other experimental psychologists have dispelled the illusion that older people cannot learn effectively. For various purposes — civic, vocational, health, leisure and family life — there are always many things to learn. In fact, one who does not continue to learn not only loses in efficiency in many of his activities, but also becomes increasingly discontented in the ever-changing world.

Continuation education can be conveniently discussed at three different levels according to the needs of the adult: (1) the highly educated, (2) the average citizen and worker, and (3) the out-of-school youth.

THE HIGHLY EDUCATED. — For the highly educated persons, extension lectures are arranged by universities and colleges. This movement began in this country as early as 1915. The Extension Departments of a number of teachers' colleges are now providing an intensive programme for in-service teachers. This is not enough, and our universities should provide sufficient opportunities for continuation education.

THE AVERAGE CITIZEN AND WORKER. — We have also to look into the needs of a large body of Indians, who had insufficient opportunities for formal education and may perhaps need some vocational training. For such persons, evening classes can be run by schools and colleges, commercial establishments, industrial concerns, religious institutions, clubs and societies.

England and Wales have a net-work of such evening classes. Nearly two million people attended classes at establishments offering evening courses in 1958.[1] The atmosphere in such classes is more like a social club than a place of learning. They provide full-time and part-time vocational and non-vocational education for people over compulsory school age, and also cultural training and recreative leisure activities.

The Union Ministry of Education has already launched a scheme of correspondence courses in a limited number of subjects so as to meet the demand for higher education and to help thousands of persons otherwise employed. The Ministry has also requested the universities to start evening classes at once so as to reduce the rush for admissions to morning classes and to enable employed persons to continue their studies. This will be the first step for providing continuation education to a number of literate adults. The Delhi University has already taken steps in this direction.

THE OUT-OF-SCHOOL YOUTH. — The Secondary Education Commission observes:

> Although the Constitution has provided that all children up to the age of 14 should receive part-time education, it seems to us that under the existing conditions it may not be possible to achieve this objective for many years to come.[2]

The Commission suggested the provision of free, part-time continued education for children in the age group 11-14 in the middle and high schools after usual hours until these children attain the age of 14, and recommended the provision of special courses for them.[1]

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[1] Central Office of Information. *Education in Britain*. London, H.M.S.O., 1960. p. 43.

[2] *Secondary Education Commission's Report*. p. 56.

It has already been pointed out that India's third and fourth five-year plans envisage the provision of continuation education for children in the age-group 11-14. This education will be provided during day or night according to the convenience of teachers and pupils. It will prepare the pupils for the same examination and carry the same certificate value as the senior basic or middle school certificate.

Steps should also be taken for giving continuation education to adults of the age-group 20-35, who had to leave school after two or three years. It may be noted that courses were started at certain centres for women of this age-group a few years back. While reviewing the progress of various welfare programmes, the Central Social Welfare Board expressed satisfaction with these courses. They enabled their students to prepare themselves, within a period of about two years, for the seventh class or the vernacular final examination, and in some cases, particularly in the cities, even for the matriculates. After taking these examinations privately, these women can take up careers in rural areas as midwives, *gram-sevikas*, craft-instructors, primary school teachers, etc.[2] These facilities should be further extended, and similar coures should be drawn for males also.

III. EDUCATION OF THE HANDICAPPED

CLASSIFICATION OF HANDICAPPED PERSONS: *Introduction.* — The XX Century has been called the 'Century of the Child', and though we are far behind western countries in the services given to the majority of our children, it is heartening to find that an era for the child has dawned in India now. It has been fully realised that in thinking of plans and developments in terms of factories and machinery, the human factor ought not to be neglected, and that the welfare of the child should be kept in the forefront. As Shri Nehru declared:

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[1] *Ibid.*, p. 57.

[2] *Times of India*, July 22, 1959.

> ...it is the human being that counts, and if the human being counts well he counts much more as a child than as a grown-up.

Handicapped Children. — In our schemes of child welfare, attention is being paid to the needs of handicapped children too. These children can be classified on two bases, viz., causal and symptomatical. While the first classification is done by referring to the personal or subjective handicaps which prevent the child from attaining normal adjustment, the second classification is based upon the abnormal or awkward behaviour which may be a symptom of some handicap deterring the individual from acquiring normal adjustment.

Causal Classification. — The handicapped children, according to the first classification, are of three categories: (1) physically handicapped, (2) mentally handicapped and (3) socially handicapped.

The physically handicapped can be divided into three groups, viz., the blind, the deaf and mute, and the crippled.

The mentally handicapped children are those whose native intellectual capacity is less than that of a normal intelligent person. On the basis of intelligence tests, these persons may be divided into following two groups:

1. Border-line deficiency: I. Q. — 70-80
2. Definitely Feeble-minded
    - (a) Moron .. I. Q. — 50-70
    - (b) Imbeciles .. I. Q. — 25-50
    - (c) Idiot .. I. Q. — below 25

The socially handicapped children cannot be further classified. These individuals are either orphans or destitute children.

Symptomatic Classification. — A human child is born with a number of physical, physiological and social needs. This can be illustrated by our needs for food, physical comforts, social recognition, affection and security. There are a number of subtle handicaps which, however, come in the way of satisfying these fundamental needs.

Poverty or culture may come in the way of food satisfaction; weak health may bring in the feeling of insecurity; ugly appearance may hamper social recognition; and so on. Normally a child is able to overcome a number of such handicaps, but there are a few exceptions too. These unfortunate beings feel frustrated and unconsciously develop some abnormal behaviour. Some may grow aggressive and develop into delinquents. Others may become indifferent and develop general backwardness. A few may grow overdependent upon others and develop neurotic tendencies.

Three symptoms in behaviour are usually accepted as indications of this type of abnormal condition. These are: (1) delinquency, (2) neurotic tendencies leading to mental disorders and (3) general backwardness in school attainments. These three symptoms are, however, often intermixed and are to be treated simultaneously.

EDUCATIONAL PROGRAMME FOR THE HANDICAPPED: *Aim.* — The main objectives in the education of the handicapped are to reduce the intensity of the hurdle, and to lead the child to learn according to his own abilities so as to help him to overcome frustrations, and to develop in him a healthy, self-respecting idependent individuality. Every handicapped child is a separate entity and deserves to be treated on its own merit.

Diagnosis. — The most important problem in the education of the handicapped, especially classified under symptomatical approach, is the discovery of the handicapped child at an early stage through proper medical examination, guidance and counselling. Each individual case requires a thorough investigation. This work can be properly done in Child Guidance and Mental Hygiene clinics.

Educational Institutions. — After the medical diagnosis and educability of the child are determined, there arises the question of giving him suitable training. There are three alternative plans: (1) to keep the child under a specialist or in a clinic or a mental hospital; (2) to place the child in a regular classroom with a modified curriculum; and (3) to transfer the child to a special school or institution. The special institutions are of the following types: (1) schools for the blind; (2) schools for the deaf and mute; (3) centres for the crippled; (4) schools for the mentally defective; (5) orphanages; (6) institutions for delinquents; and (7) clinics and guidance centres.

PRESENT FACILITIES IN INDIA: *The Handicapped Population.* — In the absence of compulsory primary education and adequately well-organised health service, the problems of the socially, physically and mentally handicapped children cannot be judged properly. It cannot be gainsaid, however, that they exist to a considerable extent.

The number of the blind, the deaf, the dumb and the mentally handicapped children in the country is not known. Unless, through the census, we carefully collect more reliable figures than what are available in this behalf, the size of these problems cannot be properly gauged.

Early Efforts. — The British Government did not make any provision for the education of the handicapped and the pioneering work in this direction was done by Christian missionaries. As early as 1883 Miss Annie Sharp, a Protestant missionary, opened a school for blind children at Amritsar. This was shifted to Dehradun in 1903. A secondary school for the blind was started at Palayamkottai in 1890 by Miss A. J. Askwith. Then came the Calcutta Blind School in 1899 started by an Indian Christian, Mr. Lal Behari Shah. The next one was the American Mission School for the Blind, founded by Miss Anna Millard in 1900 in Bombay. It is now called the Dadar School for the Blind.

Progress since Independence. — Since independence, the Ministries and Departments of Education have taken the responsibility for the support, aid and supervision of all institutions meant for the physically and socially handicapped children.

In 1955-56, a National Advisory Council for the Education of the Handicapped has been appointed. The Council consists, among others, of experts in the education and training of the blind, the deaf, the orthopaedically handicapped and the mentally handicapped. Its primary function is to advise the Government of India on all aspects of the problem concerning the education, training, employment and the provision of cultural and social amenities for the physically and mentally handicapped.

The Indian Council for Child Welfare (formed in May, 1952) stands for the co-ordination, co-operation, information, exchange and research in the field of child welfare. Another important body is the Social Welfare Board, which constituted two panels — one on juvenile delinquency and the physically handicapped, and the other on child welfare.

But the most important body is the National Advisory Council for the Education of the Handicapped. In its fourth meeting held in 1959, the Council recommended: (a) training facilities in music may be developed for which the Government of India should give financial assistance to the institutions for the blind; (b) A brochure may be published by Ministry of Education showing the trades to be learnt by the blind and other categories of the handicapped and indicating the institutions where training facilities in these trades were available; (c) Advisory Council for the Education of the Handicapped may be constituted by the State Governments on the lines of the National Advisory Council for the Education of the Handicapped; (d) The National Advisory Council for the Education of the Handicapped may be reconstituted to include an adequate number of representatives of the State Governments; and (e) Three committees may be appointed — one to examine the types of personnel required for manning different categories of institutions for the handicapped and the steps to be taken to arrange for their training; the second to visit existing schools for the mentally retarded children and to suggest measures for the development of facilities for them; and third, to consider development of training facilities for the adult deaf.

Educational Institutions. — Table 55 gives the latest inforation about the total number of educational institutions for the handicapped with their enrolment:

TABLE 55

Statistics Of Schools For The Handicapped, 1959-60*

School	Institution	Enrolment
Physically Handicapped:		
1. Blind. ..	71	3,604
2. Deaf-Mute. ..	44	3,026
3. Crippled. ..	11	682
Mentally Handicapped ..	5	380
Total ..	131	7,692

* *Education in India,* 1959-60, Vol. I., p. 258.

Schools for the Blind. — There are about two million[1] blind persons in India today, but the present institutions cater to the needs of a microscopic fraction of this vast population. The majority of institutions are conducted by voluntary agencies, and are more like homes where the poor and helpless orphans live on the minimum necessities of life. Their finance is poor; they seem to live on alms. They are, however, partially aided by the Central or State Governments. The curriculum includes trades like cane-weaving, basket-making, coir-making, carpet-making, loom-weaving, elementary carpentry, book-binding, broom-making, etc. Reading and writing are also taught by means of the Braille Code adopted to regional languages. The Code is based upon the arrangement of eight embossed dots, and the blind child is taught to read by feeling the pattern. The writing is done by embossing the symbolic patterns with the help of a special nail and a ruler with holes.

The Central Government is responsible for an authoritative study of the problems of the blind and of the facilities existing for their education and care. The Ministry of Education took the lead in developing the Bharati Braille. They also have two well-equipped institutions in Dehradun for the education and rehabilitation of the blind, which are intended to undertake research and generally serve as models for such institutions in the country.

The Central Braille Press was set up in October, 1950, to produce literature for the blind in the principal Indian languages. This is the first press of its kind not only in this country but probably in the whole of South East Asia. A few years later a small workshop for the manufacture of Braille appliances was established as part of this press. The workshop is now able to produce the basic appliances needed for the education of the blind and it is proposed to develop it further with the assistance of the United Nations' Technical Assistance Administration.

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[1] Planning Commission *Social Welfare in India*. Delhi, Publications Divisions, 1953. p. 21.

Schools for the Deaf and Mute. — The common practice in the institutions for the deaf is to combine the education of the deaf, deaf-mutes and other physically infirm with that of the blind. The curriculum in these institutions is similar to that in the schools for the blind. Instead of teaching music (vocal and instrumental), the inmates are oriented in drawing, clay-modelling and clay-painting. The teaching of the three R's is based on lip-reading and articulation.

Centres for the Crippled. — The crippled are to be treated on different lines from those of the blind, deaf or mute, since crippled children can receive education in normal schools. The main problem in the treatment of crippled children is to train them to make use of the prosethetic appliance for practical purposes. This involves the development of such muscles, so that the appliance can be used and co-ordinated with other limbs. These objectives are achieved by giving the child exercises or through practice in crafts like knitting, carpentry, etc. These programmes are thus more of the treatment type rather than educational. Naturally the centres where such arrangements are made are attached to hospitals, and the children coming for treatment often attend schools for normal children.

Schools for the Mentally Defective. — The main objective of these schools is to help the child to learn the essential skills in his own way and at his own speed. Only three institutions in the whole country are known to work for mentally handicapped children. The few mental hospitals, that exsist in the country, make no special arrangements for the treatment of child patients.

Orphanages. — Orphanages are the institutions, which give shelter to destitute children. The number of such children in the country must be in thousands. To this may be added the number of children who are virtually destitute in view of the fact that they are without effective guardianship. The institutions that function under the Children's Acts in the various States, particularly, in the States of Bombay, Madras, Bengal, Delhi and Uttar Pradesh, work for the destitute child. The *ashrams*, missionary homes, Salvation Army homes, Ramkrishna Mission homes — all these also work for the destitute but they work on a voluntary basis. There are other institutions that are unregistered and which are alleged to exploit the needy boys and girls. The conditions of these institutions vary from place to place. Sympathy, a philanthropic attitude and the urge to do humanitarian work for children guide the activities of most of these organisations, but in some cases there is reason to doubt their motives.

Institutions for Juvenile Delinquents. — Juvenile delinquency is mainly the result of faulty conditions of upbringing the child in his family. Since the delinquents are a social nuisance, almost all the States have framed Children's Acts. These deal with: (1) the child in conflict with law, (2) the child who is a victim of cruelty, (3) the child who is uncontrollable and (4) the child who is destitute. Juvenile courts have been set up in several States, and in States without such organisations the juveniles are tried in ordinary courts.

Juvenile institutions can be classified into two groups: (1) institutions for those who are convicted, viz., juvenile jails, and reformatory or borstal institutions; and (2) institutions for those who are not convicted, viz., certified schools, remand homes, fit persons' institutions, after-care hostels, etc.

Clinics and Guidance Centres. — These centres provide psychotherapeutic services to children and adults. There are, however, a few centres of this type in the whole country, and they are mostly attached to mental hospitals or remand homes. On March 2, 1955, the Indian Ministry of Health established a Child Guidance Clinic, attached to the College of Nursing, New Delhi. It is the first government clinic of its type in the country.

Training of Teachers.—A small beginning has been made for training teachers in Special Education. For example, the Deaf and Dumb School, Lucknow has a training section for preparing teachers for the deaf. A teachers' training department has also been established at the Deaf and Dumb School, Calcutta.

ADMINISTRATION. — The administrative set-up for the education of the handicapped differs according to States. The head is styled as the Chief Inspector of Certified Schools or the Chief Probation Officer, according to the prevalent practice in the State. In some areas, there are unsalaried Probation Officers who are paid honorarium per child entrusted to their care.

Institutions for the handicapped are supported from four sources: (1) government, (2) local bodies, (3) pupils' contributions — their fees and the sale of articles prepared by them, and (4) endowments and other sources. During 1959-60, the total expenditure on the education of the handicapped was Rs. 3,016,037.[1] As a pilot project, the Union Government has set up two employment exchange organisations for the handicapped — one at Madras and the other in Bombay. The Government of India contributes 50 per cent. of the expenditure involved in post-school scholarships for the blind.

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[1] *Education in India.* 1959-60, Vol. I. p. 261.

ANIPUR

SOME PROBLEMS. — There is a tremendous upsurging in all directions in India both on the part of Government and of the people since independence; we have been paying more attention of late to social welfare than was possible during the British period. In any scheme of social welfare, the education of the handicapped cannot be neglected. Following problems, however, demand immediate attention:

1. *Preparation of Careful Statistics of Under-privileged Groups* — The reports of the Census of 1951 and 1961 do not contain detailed information in respect of different categories of handicapped persons. Statistics about these groups and their state-wide break-up can be of great help in the formulation of schemes for their welfare with a full understanding of their financial implications. Thus the decennial Census of India should be more comprehensive in nature.

2. *Provision of Better Institutions.* — There is a need for nurseries for handicapped children, increase in the number of libraries and vocational institutions, facilities for higher education for deserving students, and establishment of after-care homes for aged persons.

3. *A rural bias in Curriculum.* — Since a large number of the handicapped persons live in the countryside, it is necessary to provide for them rural and agricultural training to enable them to live as useful members of society.

4. *Need for Better Funds.* — Since the existing institutions touch only a fringe of the handicapped population, there is a need for more institutions and funds. For the Second Five-Year Plan, a modest sum of three hundred thousand rupees is recommended for child welfare. The Government should also fix rules for giving aids to educational institutions.

5. *Need for a Trained Personnel* — In 1955-56, as many as 675 teachers were working in schools for the handicapped. The majority of them are untrained and unqualified for their work. They as well as the staff of guidance clinics need specific training.

6. *Administrative Weaknesses* — It is reported that the Children's Acts wherever they exist are not applied as a whole and in no case to all parts of the respective States. The machinery set up is sometimes inadequate and the work does not seem to have succeeded in creating enough enthusiasm for the cause.

IV. STUDENT GUIDANCE

A. Introduction

EARLY GUIDANCE. — Guidance is a development of the twentieth century and is typical of the complicated pattern of our modern civilisation. In the days gone by, life was simple, pastoral and rural, and young people used to seek the help of their elders in vocational problems.

In 1908, the first guidance bureau was established in Boston by Frank Parsons. Since then more or less systematic efforts have been made throughout the world to bring about a harmonious adjustment between the student and the educational system.

MEANING OF GUIDANCE. — To guide means to lead, to direct, to assist. The word 'guidance' suggests at least two distinct individual parties: the one with a goal to be achieved, and the other with a superior knowledge and wisdom necessary for assisting the individual to attain the desired goal. In educational literature this term is used to mean "a form of systematic assistance to students or others, to help them to acquire knowledge and wisdom free from compulsion and prescription, and calculated to lead to self-direction."[1] It will thus be seen that guidance is a complex process. It should help each individual not only to help self-understanding but also to promote the growth of the individual in self-direction. The help given to the individual is thus always designed to assist him in making "wise choices, adjustments, and interpretations in connection with critical situation."[1]

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[1] V. C. Good, ed. *Dictionary of Education*, London, McGraw-Hill, 1948. p. 194.

ASPECTS OF GUIDANCE. — Students encounter various types of difficulties, and as such they need guidance in various directions. These may be classified as: (1) educational guidance, (2) vocational guidance, (3) personal guidance (including social, emotional and lesiure time guidance,) (4) health guidance and (5) economic guidance. But many of these areas overlap one another.

DIAGNOSTIC TECHNIQUES. — The modern method of guidance is based upon the assumption that students are often unable to diagnose their own aptitudes and interests and that, therefore, they need the asistance of a trained diagnostician, in addition to information about jobs. The diagnostic techniques at present generally include: (1) the interview, (2) methods of diagnosing emotional maladjustments, (3) cumulative records as essential in diagnosis, and (4) measurement techniques. It is beyond the scope of this book to discuss these items, and readers are advised to go through some standard books on guidance and counselling.

Guidance Movement in India

EARLY EFFORTS. — It is generally acknowledged that the guidance movement in this country originated with the setting up of the Applied Section of the Department of Psychology of the Calcutta University in 1938. This was followed by the establishment of several bodies later on, viz., Batliboi Vocational Guidance Bureau, Bombay (1940) which was amalgamated with the Vocational Guidance Bureau of the Parsi Panchayat Funds and Properties, Bombay in 1947; Department of Psychological Service, Patna University (1945); Bureau of Psychology, Allahabad of the Government of Uttar Pradesh (1947); Vocational Guidance Bureau Bombay of the Bombay Government (1950). The Ministry of Labour, Government of India, also set up Employment Exchanges in India (1947).

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[1] J. A. Jones. *Principles of Guidance*. London, McGraw-Hill, 1957. p. 97.

THE SECONDARY EDUCATION COMMISSION. — The importance of guidance was stressed by the Secondary Education Commission, which pointed out:

> 1. Educational guidance should receive much greater attention on the part of the educational authorities.
>
> 2. The services of trained Guidance Officers and Career Masters should be made available gradually and in an increasing measure to all educational institutions.
>
> 3. The Centre should take up the responsibility of opening in different regions centres of training for Guidance Officers and Career Masters to which each State may send a number of teachers or other suitable persons for training.[1]

STEPS TAKEN. — Based on the recommendations of the Commission, the Government of India organised its own Educational and Vocational Guidance Bureau at Delhi (1954) and also offered financial assistance to the State Governments to open or expand their bureaux. The main functions of this Bereau are to give professional assistance to the State Governments, universities and private agencies in the setting up and running of their guidance organisations, to train key personnel, to co-ordinate the activities of State and private guidance agencies, to prepare tests and other guidance tools and aids, to conduct research in various problems connected with guidance, and to undertake such other activities as will promote the development of guidance services in the country and improve their quality. Almost all the States have now their own bureaux, and a few universities, teachers colleges and private bodies have set up similar organisations. A number of universities have also made provision for an optional paper on Guidance in the B.Ed. and M.Ed. courses, and a few State guidance bureaux are conducting short-term and long term courses for career masters. In-service training facilities for guidance personnel are also being provided by some guidance centres and extension departments of teachers colleges. A few bureaux have also undertaken programmes of test construction and standardisation, have brought out some useful publications, and have launched a number of experimental studies.

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[1] *Secondary Education Commission's Report*. p. 143.

Parallel to the development of guidance in secondary education is the development of guidance in the National Employment Service, beginning in 1956. Following the recommendation of the Shiva Rao Committee on Employment and Training, the Ministry of Labour and Employment established a Vocational Guidance Unit at the headquarters of the Employment Service in the Directorate General of Resettlement and Employment. By now Vocational Guidance Sections have been established in 46 employment exchanges. These provide vocational guidance and employment counselling service to all persons who seek employment or guidance from the employment exchanges, and also assist young persons in obtaining suitable placement in jobs, training institutions or apprenticeships.

Another notable event is the organisation of guidance seminars on an all-India basis. The third seminar, held in Baroda in February, 1956, prepared a draft constitution for an All-India Educational and Vocational Guidance Association.

The objects laid down in the Constitution of the Association are as follows:

1. To co-ordinate educational and vocational guidance activities all over India and to maintain standards in the field.
2. To promote public consciousness in matters pertaining to guidance.
3. To consolidate and further guidance in general, and educational and vocational guidance in particular.
4. To bring together periodically workers in the field of guidance in the country and to take necessary steps for the exchange of ideas, information and research work and the like in the field.
5. To undertake any other activity in furtherance of guidance in India.[1]

Efforts have been made from the beginning to coordinate the guidance programmes of the educational authorities with those of the National Employment Service. At the initiative of Strom, a UNESCO expert attached to the Central Bureau of Educational and Vocational Guidance, and Doos, an I.L.O. expert attached to the D.G.R. & E., the Ministries of Education and of Labour and Employment have worked out an agreement concerning the division of responsibility for the provision of guidance services. To facilitate collaboration at the Centre, a Working Group on Vocational Guidance and Employment Counselling has been formed. To bring about collaboration at the State level, State Coordination Committees have been formed in ten States, and District Coordination Committees have also been proposed.

Main Problems

Thus guidance is finding its due place in post-Independence period in this country. It has been partially realised that the success or failure of education is not to be measured in educational terms but in terms of life. The movement has, however, to face a number of initial difficulties which are discussed below.

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[1] *Journal of Vocational & Educational Guidance.* August, 1956. p. 34.

ORGANISATION OF GUIDANCE SERVICES. — In order to facilitate the process of guidance services, it is very necessary that every State bureau is organised properly. The bureau should be under a well-qualified director with regional officers to help him. The main activities of the bureau should be: (1) initiation and organisation of guidance services, (2) publication and information, and (3) survey and research.

It is also suggested that every high school has either a trained teacher as a teacher counsellor or a whole-time counsellor. While the functions of the former should be dissemination of information, collection of relevant data, administration and maintenance of school records, the latter should supervise guidance programmes conducted by the teacher counsellor.

The need for providing guidance facilities at the college level be hardly stressed. In the U.S.A., guidance has developed markedly in recent years at the university stage too. In many institutions there are now offices staffed with from two to twenty specialists under the director of guidance. In addition, there has grown up the practice of designating a number of the members of the faculty as counsellors who are given counselling as a part of their duties and responsibilities. Most colleges have a health service and give health and physical examinations too. In a growing number there is at least one psychiatrist to counsel with students suffering from lack of mental health or actual mental or emotional complexes of one kind or another.

PREPARATION OF GUIDANCE PERSONNEL. — An initial beginning has been made in this direction in the country, but this is not sufficient to cope with the increasing demand. As suggested by the Third All-India Seminar on Educational and Vocational Guidance, the following courses may be organised for the training of tecaher counsellors and counsellors:

1. *Teacher Counsellors* — three months' full-time course or equivalent part-time courses. The existing courses in guidance at the B.T. or B.Ed. level can be adjusted to conform to this minimum.

2. *Counsellors* — one academic year's full-time training or its equivalent to suitable persons—B.A. (Hons) in Psychology, M.Ed. or trained teacher counsellors with a year's experience in guidance.

PREPARATION OF PUPILS. — Generally, there are four main stages at which a boy or a girl is required to make a choice—at the end of the middle school (VII standard or the delta class,) at the time of passing the high school leaving examination, at the intermediate stage in the college and at the time of graduation. It will be very necessary to supply pupils with details of future courses at the end of each of these stages. With the provision of deversified courses at the high school stage, the importance of giving proper guidance at Std. VIII has increased considerably. This standard should be considered as the 'exploratory gear?' for locating the special aptitudes and inclinations of each pupil.

But before a pupil decides whether or not to take a particular course of studies, he should know the prospects of employment after the completion of the course. Thus it will be necessary to supply him with full occupational information, which should include:

1. Description of the vocation and duties involved.
2. Requirements of the vocation—mental and physical.
3. Working conditions—hours, environment, associates, pay, etc.

4. How to enter the vocation?—employment bureaux, personal contact, and other means.

5. Opportunites for advancement.

6. Advantages—social, financial, cultural, etc.

7. Disadvantages.

Every pupil, desiring to join a university, should further know what college facilities are available to him, where and what are the conditions of admission to these colleges. It should be realised that as soon as he passes his school final examination, he is going to face this problem of joining a suitable college and taking up appropriate courses of study so the information about various colleges and universities becomes essential.

MAINTENANCE OF PUPIL DATA. — Guidance is a continuous process, and its success depends much on the maintenance of comprehensive information about every pupil systematically. The data collected about an individual is recorded and presented for use by means of the cumulative record card. As a minimum, it should include: (1) identifying data, (2) home background, (3) personal qualities, (4) health and physical development, (5) extracurricular activities, (6) school attendance, (7) test records, (8) scholarships, (9) interests and hobbies, and (10) educational and vocational plans.

The card should be kept up-to-date and every information should be recorded clearly and accurately. It should be checked periodically at definite times during the school year. There should be an accepted school policy with regard to recording data, filing it and using it. The record should be available to all those persons qualified to use them. To sum up, the card should aim at simplicity. It should be maintained in meaningful way. Entries should be made carefully and objectively.

Terms and symbols used in the card should be meaningful to other pupils.

THE NEED FOR TEAM WORK. — Guidance is a highly multiple activity, which no institution can deal with alone. It needs the joint efforts of many agencies such as the headmaster, teachers, educational authorities, employment agencies, the doctor, the psychologist, etc.—to say nothing of the youths themselves and their parents. Unless this co-operation is materialised, guidance will prove ineffective. The counsellor should take assistance from teachers in mapping out a full chart of each student's personality and aptitudes. The school staff should also maintain contact with parents through home visits, professional meetings and correspondence.

PREPARATION OF GUIDANCE AIDS. — There is also the need for preparing the correct type of guidance aids. These are of various types: (1) pamphlets for the guidance of parents and teachers, (2) filmstrips for general orientation, dealing with 'the world of work', (3) preparation of suitable posters and charts, and (4) model talks for educational and vocational orientation.

TESTING. — To make the assessment of individual pupils, it is very necessary to utilise standardized tests. These are of various types, viz., Achievement Tests, Intelligence Tests, Aptitude Tests, Personality Tests and Interest Tests. India has standardized hardly a few tests of these types suiting Indian conditions. At the same time, norms and percentile marks are not available. This should not deter a school. It should begin to establish school norms for a given test. These norms can and should be revised after each administration of the test. It is thus desirable for a school to establish its own set of norms even if national, state, or city norms are not available.

TREATMENT OF SPECIAL CHILDREN. — From time to time, the guidance counsellor may come across handicapped children—the mentally deficient, the emotionally unstable, and others. He should not deal with such children. These need to be referred to special institutions.

D. Conclusion

These are some of the main problems offering a challenge to the guidance movement which is yet in the formative stage. in the country, The movement, however, has a great future and will go a long way in improving the quality and standards of education. We should also remember that time will always be there in the future to improve and develop guidance, but there is no time like the present, if we want to do something for those who are leaving school or college in these days of a complicated employment situation and a transitional world of occupations. There are a number of problems facing the guidance movement in this country. The chief of them are:

1. Public apathy towards the value of guidance and the fundamental worth of the individual is basic to everything.
2. Administrative support is necessary, if the guidance programme is to develop.
3. There is scarcity of essential tools for guidance workers.
4. The trainers of guidance workers including staff to conduct seminars and workshops are limited.[1]

V. TEXT-BOOKS

INTRODUCTION. — Text-books may be looked upon as the symbol of national culture. They are not national symbols in the same sense as the Ashoka Charka, but they are perhaps more revealing of national ideas, ideals and values than the figures on our coins and flags.

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[1] P. Pasricha and T. Shreck. *A Handbook for Developing Guidance Services in Secondary Schools*. Baroda, the Centre for Advanced Study in Education, 1964. pp. 34-35.

It is admitted in all quarters that teachers play the most significant role in the educational process, but the role of the text-book is none the less important. At the primary stage, the child depends more on the teacher than on the text-book. But with the increase in age, this child becomes critical of his teacher. If he is not satisfied with his teaching, he relies more on the text-book than on the teacher.

There is also a difference in the relative influence of the teacher and the book. A teacher can influence a limited number of pupils who gather round him, whereas a good book can influence the mental progress of a mass of people not only in the country of its origin, but even abroad. It is also not possible to provide a teacher for every branch or item of learning. One has to depend on printed words. Thus the role of the text-book is very important not only on the individual's life, but on the life of the nation as a whole. The large number of students appearing in recognised examinations as private candidates entirely with the help of text-books bears testimony to this fact.

Over twenty crores of text-books are sold annually in India today. And everybody is concerned about them: the parents who pay for them, educationists who examine their contents critically, authors who write them and are increasingly compelled to defend themselves from attack, and the Departments of Education which prescribe them and are ruthlessly criticised if the selection is not appropriate.

EARLY STATE MEASURES. — The Government was fully alive to the importance of the proper selection and preparation of text-books. During the last century, the aim was to translate standard European books into Indian languages. For example Mr. M. Elphinstone recommended in 1825, "That the best translations of particular books, or the best elementary treatises in the specified languages, should be advertised for, and literally rewarded." Adam advocated the adaptation of European books to suit Indian conditions. In his valuable reports, he mentioned, "Not to translate European works into the words and idioms of the native languages, but so to combine the substance of European knowledge with native forms of thought and sentiment as to render the school books useful and attractive." And the Wood's Despatch of 1854 advocated, "The oriental colleges....be made of great use in the translation of scientific works into Indian languages."

Twenty years later, the Government of India took a definite step and passed a Resolution requesting State Education Departments to appoint committees for the examination of existing school books. The committees were to discover defects in the text-books, and to suggest reforms in harmony with the known principles of production and selection of school books. The Resolution specifically directed that:

> A Standing Committee should be appointed in each province to choose or, if necessary, to prepare appropriate text-books in the Indian languages and that the Committee so constituted should draw up a list of suitable books that could be adopted by the different schools. Where no suitable text-books existed in any particular subject, the Standing Committee should take steps to have them prepared.

The Hunter Commission of 1882 further recommended, "That the Text-book Committees in the several provinces include qualified persons of different sections of the community not connected with the Department, and to these Committees should be submitted all text-books, both English and Vernacular". Thus the Commission aimed at drawing the private sector into the picture.

RECOMMENDATIONS OF THE SECONDARY EDUCATION COMMISSION. — As a result of the Government of India's Resolution of 1874, every State Government took early measures to set up a Text-book committee consisting of official and non-official members for the selection and prescription of text-books. But the position is not very happy even today. There is a unanimous opinion that the text-books prescribed for a particular grade are either too difficult or too easy or they are very defective in the language in which they are written and in the manner in which the subject is presented. Inaccuracy of subject matter, typographical errors, absence of drawings, sketches and illustrations, inadequate attention as to the size, cover and binding of books, the inferior quality of paper used—resulting in early damage—are some of the defects which are common in our text-books. It has been observed that undesirable influences play a significant part in the matter of selection of text-books for schools, almost at all levels,—depending on the integrity of the individuals concerned. As such, it is difficult to fix full or final responsibility on any single agency.

Commenting on these defects, the Secondary Education Commission declared:

> We are greatly dissatisfied with the present standard of production of school books and consider it essential that this should be radically improved. Most of the books submitted and prescribed are poor specimens in every way—the paper is usually bad, the printing is unsatisfactory, the illustrations are poor and there are numerous printing mistakes.[1]

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[1] *Secondary Education Commission's Report.* p. 102.

The Commission made several definite recommendations. Firstly, every State Government should set up a high power Text-book Committee consisting of a high dignitary of the judiciary of the State, a member of the Public Service Commission, a vice-chancellor of the region, a headmaster or headmistress in the State, two distinguished educationists and the Director of Education. Secondly, it was suggested that the Committee should lay down clear criteria for the type of paper, illustration, printing and format of the book. Thirdly, the Central Government should either set up a new institution or help an existing Art school to develop a course to train promising artists in the technique of text-book illustration.

TOWARDS NATIONLISATION OF TEXT-BOOKS. — Another movement in the country today is towards nationalisation of text-books. According to this policy, every State is expected to take direct interest in getting the text-books written, published and distributed. Such a policy is expected to remove the existing defects in the production of text-books and mitigate the evil practices. The Government hopes that by nationalisation the prices of the text-books can be reduced and controlled, the format and the general get-up of books can be improved, and the existing evils of selection of books by the Text-book Committee can be obliterated.

As early as the 19th century, some of the text-books in the Punjab were nationalised. There was neither revision in the syllabus nor were the text-books changed for a long period. The Government of Bihar also gets books written and publishes them as well as distributes them. In the U.P., nationalisation was confined to language books only. In 1948, the Bombay Government decided to have its own publications and started printing language books. But the Government red-tape and

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[1] *Ibid.* p. 107.

formalization caused enormous delay in supplying the books and to overcome this defect it was forced to seek the help of private printers' agencies. The Andhra Government has nationalised the text-books of the primary classes. It is, however, found that the books are in no way cheaper and there is enormous delay in supplying text-books. The Government of Madras has decided to entrust the work of distributing the text-books published by them to licensed book-sellers from 1959-60. Kerala has decided to give up nationalisation altogether. The Rajasthan Government attempted nationalisation of text-books for Classes I-V for the year 1957-58. But the attempt proved to be a failure. Assam, Jammu & Kashmir, and Madhya Pradesh also experimented with this measure.

In short, a number of States have tried this experiment of nationalisation of text-books with varying degrees of success. But in the majority of the States, the experiment has not been a complete success.

APPRAISAL OF NATIONALISATION OF TEXT-BOOKS. — While nationalisation of text-books is faced with a number of problems, the experiment has succeeded in reducing the cost of production to an enormous extent. And this is a very significant achievement, since the school-going population is increasing considerably during recent years and it may perhaps be necessary to supply them with free books. This means that the costlier the books, the greater the burden on the State.

As against this single advantage, the experiment has not proved a success. Mistakes in contents and printing continue, the get-up of the books is not what it should be, and their supply is always delayed thereby greatly harming the interests of children. For example, there is a recent agitation in the Maharashtra about the Geography text-book for Standards IV and V published by the Government. It contains several errors. This shows that the expert committee entrusted with the work of publication had not applied its mind fully. The Times of India writes:

> It is credible that unsuspecting school children should be compelled to read the kind of triffle that one finds in the geography text-book...Both in style and in substance, the books are of a scandalously low quality. Almost every second sentence is grammatically incorrect, with the author's making precisely the kind of mistakes which teachers of English in secondary schools presumably ask their pupils to guard against.[1]

The position is equally depressing elsewhere. There are other drawbacks: Difficulties in the supply of text-books in proper time is being experienced in almost all the States. Even in Soviet Russia, where centralised administration has been etabilised through years of experience and is functioning more efficiently similar difficulty has been experienced. Commenting on this, "Pravda" wrote in its issue of November, 30, 1954: "Facts show, however, that text-books' trade is poorly organised in many cities and villages, millions of text-books lie in warehouses, stores, and shops. . .At the same time there is shortage of them in many schools." The danger of a similar difficulty being experienced in India cannot be eliminated.

Finally, the nationalisation of text-books has another great danger. It is a very powerful weapon of indoctrination in the hands of the party in power. It is a source of great danger to a nation, if this medium is misused.

CONCLUSION. — Thus no compromise is possible where the quality of the teacher or the text-books is concerned. Can it be assumed that the nationalisation of text-books will remove the existing defects and mitigate the evil practices?

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[1] *Times of India.* July 10, 1964.

In Russia, text-books are nationalised and the experiment is successful. As against this practice, the production of text-books is a private enterprise in the U.S.A. It is, however, held that the American text-books are better than the Russian ones. If this is true, why is it not possible to produce good books without nationalisation? The answer is simple. The method of producing text-books through private enterprise has been given a sufficient trial in the country and it has not worked efficiently. Examples are not lacking where some of the publishers stooped low to get their books prescribed. The quality of text-books continues to deteriorate.

What steps should then be taken in this country, if nationalisation of text-books is to succeed? Firstly, each State should have a Text-book Committee on the lines suggested by the Secondary Education Commission.[1] The idea in having a judge as its chairman is not to undermine the confidence in the Director of Education but only to make it immune from the influence of the executive of indoctrinating. Secondly, every State should have a Bureau of Text-book Research. Its duty should be not only to screen through the text-books, but even to examine the courses of study carefully. After all, the text-books are to be based on the prescribed syllabi. It should further fix specifications regarding production of text-books, viz., format, paper, type, illustrations, etc. Thirdly, the writing of the text-books should be entrusted to competent persons. Writing is an art, and more so with school text-books. In his presentation, the writer has to pay attention not so much to the 'coverage of facts' but what the child can grasp and how he can understand the subject matter properly. He should also place knowledge in its modern perspective. The selection of writers is thus very important, and they are to be adequately remunerated if they are to be attracted. In the Soviet Russia, the text-book writers are paid exceedingly well and this form of writing is held in high esteem. Professors, scientists, and other experts in the universities and higher institutions are actively encouraged to write text-books. Text-book writing is treated almost on a par with other forms of academic research. It will indeed be difficult to get such top-rank writers in every regional language, and the experiment may prove very expensive. It will be desirable, if sets of school text-books in different subjects are prepared by the National Council of Educational Research and Training. These can be adapted to suit local needs.

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[1] *Supra*. p. 428.

It will also be necessary for every State Government to have a decent and well-equipped press. Unless the Government invests substantial money and owns its own press, nationalisation will end in a muddle. The state will be forced to go to private publishers again and the very purpose of nationalisation will be lost. Moreover, the aim of the Government in nationalisation, is to produce better books at low cost. If the Government depends upon private printers, this will be defeated. Finally, the Central Government and every State Government should build up and maintain a library of blocks of good illustrations which could be utilised whenever there is need. This was suggested by the Secondary Education Commission, but no action seems to have been taken on this recommendation.

The UNESCO is taking a keen interest in the preparation and production of text-books. A meeting of educational publishers from 48 countries held in Paris from June 22 to 26, 1964 recommended that UNESCO should organize international and regional text-book centres, co-ordinate the exchange of text-book information among such centres, publish regular catalogues of the best text-books, supply more experts in text-book preparation and production, assist in translating text-books, provide practical workshop fellowships, and furnish financial aid, where possible, to developing countries to produce text-books. This recommendation, when implemented, will be a great step in the production of text-books.

VI. EXAMINATION AND EVALUATION

Introduction

Over six lakhs of pupils appear every year in India at the Matriculation or equivalent examinations, and approximately 43 per cent of them are declared successful. In Indian University examinations, the failure rates are very high often exceeding sixty per cent. The alarming percentage of failures in the examinations and the perceptible deterioration in the standards of attainment of even the successful products of our schools and colleges as revealed in their performance in the Public Service Commission examinations have lent a new urgency to the problem of educational reform.

The obvious defects of the examination system have been carefully pointed out and analysed by a number of educational committees and commissions. The Indian Universities Commission of 1902 remarked, "The greatest evil from which university education in India suffers is that teaching is subordinated to examination, and not examination to teaching", and in 1949 the University Commission observed, "If we are to suggest one single reform in university education, it should be that of examinations." The Commission further suggested:

1. The Ministry of Education should undertake a thorough study of the scientific methods of educational testing and appraisal.

2. Each university should have a permanent full-time Board of Examiners, which should advise the university or college instructional staff concerning teachniques in devising and constructing objective tests.

3. Credit should be given for classwork and that one-third of the marks allotted to each subject be reserved for work done during the course of instruction.

> 4. It is not desirable that all work for the first degree (involving three years) be subjected to one examination at the end of the period. Sections of the course, which are more or less self-contained, can be made the subject of periodical examinations and spread over the three years' duration.
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> 5. In post-graduate courses, term papers can be required as a part of this course credit.[1]

Five years later, the Secondary Education Commission made the following recommendations:

> 1. The number of external examinations should be reduced and the element of subjectivity in the essay-type tests should be minimised by introducing objective tests and also by changing the type of questions.
>
> 2. In order to find out the pupil's all-round progress and to determine his future, a proper system of school records should be maintained for every pupil indicating the work done by him from time to time and his attainments in the different spheres.
>
> 3. In the final assessment of the pupils due credit should be given to the internal tests and the school records of the pupils.
>
> 4. The system of symbolic rather than numerical marking should be adopted for evaluating and grading the work of the pupil in external and internal examinations and in maintaining the school records.[2]

The suggestions of these two important Commissions have made us aware of the need for reforming our examination system. The U. G. C. is organising seminars on examinations every year. The DEPSE has also set up an Examination Unit at the Centre, and almost all the State Governments have been encouraged to set up their own units.

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[1] *University Education Commission's Report*. Chapter X.

[2] *Secondary Education Commission's Report*, p. 162.

What is wrong with our Examination System?

Several causes are considered as responsible for such a large percentage of failures in various public examinations in this country. These have been very carefully analysed by Dr. Benjamin Bloom of the University of Chicago. He was invited by the Indian Ministry of Education in 1957, and he conducted several workshops on Evaluation in Secondary Education. He locates the causes of the high rate of failure in the examinations of Indian Universities in (1) the selection or admission procedures adopted, (2) the types of learning experiences provided, and (3) the types of examination used to determine success or failure. According to him the problem of examination reform is really a complex one involving the whole of the teaching-learning process and would be largely solved if we could somehow improve the quality and methods of teaching and the responses and learning habits of students. His views and recommendations deserve the attention of all educationists. He says:

> Examinations do much to control the behaviour, thoughts and attitudes of students and teachers alike. But no living individual or group is in control over the examinations; only a body of traditions and practices which have accumulated over the years . . The syllabus usually contains a detailed list of topics and it suggests that education is equated with the acquisition of some detailed information on each of the topics listed. The effect of such a syllabus and the pressure of time and numbers of students make information on each topic the major purpose of instruction for the teachers, the major objective emphasised by the examiner and the cramming of such information the major task undertaken by the student.
>
> A comparison of the question papers over several years reveals a highly stereo-typed character in the questions set. Originality in setting questions is not valued. The necessary materials for setting a paper are the syllabus

and the old question papers, the same tools as the student used in his preparation for the examination.[1]

In spite of all these defects, it is not possible to abolish the system. It has been helpful in maintaining some standard in education. It has three main functions: (1) It is an instrument of teaching; (2) It classifies students, and (3) It is a rough measure of the teacher's achievement.

There is, however, an urget need for reforming the examination system. It should, however, be realised that the system is linked up organically with the entire system of education. Progress has to be achieved and attempted by reform in several directions simultaneously, by (1) viewing the system in relation to the purpose of learning and learning experiences of pupils; (2) improving teaching methods; (3) finding the right types of tools for evaluation; and (4) putting an end to various malpractices.

Suggested Reforms

EXAMINATION SHOULD BE VIEWED IN RELATION TO THE PURPOSE OF LEARNING AND LEARNING EXPERIENCES OF PUPILS.— It has been found that at present instruction and examination function apart, and we should endeavour to devise ways and means for integrating examination with instruction. This is not very difficult provided we properly understand the steps involved in a good programme of evaluation. It has three steps:

1. Defining educational purposes or objectives in terms of pupils' behaviours. — In this connection, a teacher can ask himself the following questions: Why do I teach this subject? What are the specific purposes of the curse? But this is not enough. Objectives should be more concretely defined in terms of the behaviour changes that

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[1] B. S. Bloom, ed. *Evaluation in Secondary Schools*. Delhi, DEPSE, Second Edition, 1961. p. 123.

can be brought about in pupils. It should be realised that education implies a change in one's mode of thinking, feeling or action. If a pupil is really educated at school, he will have ideas that he did not have before, attitudes and interests that were not previously present.

2. Determining the syllabus and other learning experiences of the course, i.e., the contents of the instructional programme, through which the attainment of the objectives can be tested.

3. Evolving evaluation techniques, i.e., preparing examination questions, exercises or tests, for finding out in what ways and to what extent instruction has been successful in bringing about the planned behaviour changes in pupils.

Thus there is a very close relationship between educational purposes, learning experiences and evaluation techniques. In fact, examination is an integral step involved in a good programme of instruction. It is not an external factor, and is but a part and parcel of instruction. It is implied in an effective programme of instruction.

A good examination is one in which questions are spread over as many of the prescribed items of the syllabus as desirable. A good coverage of the syllabus ensures content validity for the examination. The examination then is fair to the candidates who prepare fully, reduces much of the chance element from which our present examinations suffer, and the resulting scores are representative of relative total performance in the areas measured.

IMPROVEMENT OF TEACHING METHODS. — The right type of teachers are no doubt necessary for effective teaching. But teaching in schools and colleges should not be mere formal instruction. With the formation of large classes, the close contact between the teachers and the taught is almost disappearing and the lecture-method is proving inadequate. The college covered. They further save students from falling into the habit of writing irrelevant answers. Also, it takes less time to score the answers, and the scoring can be more or less objective.

Objective-Type Tests. — The most important advantage of the objective test is that their scoring can be almost perfectly objective, which is not the case with the essay tests. They are generally of four forms: (1) completion exercises, (2) true false or Yes/No questions, (3) multiple-choice items, and (4) matching test items.

Some Other Factors

INTRODUCTION. — Besides setting a question-paper of a proper type, some other factors should be borne in mind while conducting external examinations. These are: (a) assessment of answers, (b) appointment of examiners, (c) weightage to class-records, and (d) need for school records.

ASSESSMENT OF ANSWERS. — In order to overcome the drawbacks of numerical marking, it has been advocated that letter grades be given on a five-point or seven-point scale. This suggestion is logical in that a teacher can distinguish five or seven degrees in achievement in a class.

APPOINTMENT OF EXAMINERS. — It is also necessary that the examiners for the school leaving examinations are selected with great care. No one should serve as an examiner in a subject, which he has not taught at least for five years.

WEIGHTAGE TO CLASSWORK. — In the final assessment of the pupils for the school leaving examination, due credit should be given to internal tests and the school records of the pupils. Such a practice will be conducive to efficiency both in teaching and learning. It will make it possible to spread the work uniformly during the academic year and the very common practice of working at high pressure in the last few months immediately preceding the examination, which is notoriously responsible for undermining pupils' health and causing severe nervous strain, will be effectively discouraged. Even in annual promotions, the emphasis on one all-important annual examination should be reduced, and the results of periodical tests and of weekly or monthly examinations should be considered for purposes of promotion. Such a system will reduce the evils of the 'chance factor' to a great extent.

NEED FOR SCHOOL RECORDS. — It will be possible to give a correct weightage to the pupils' classwork, provided proper school records are maintained for every pupil indicating the work done by him from time to time and his attainments in the different spheres. This shows the urgent need for cumulative record cards.

Conclusion

The study of the examination systems of different Boards and Universities of this country is a fascinating subject. An account of the pattern of examinations conducted by the Boards is given here.

The boards conduct high and/or higher secondary examinations. The higher secondary examination is generally held at the end of 11 years of schooling except in Andhra Pradesh and Bihar where it is held at the end of 12 years. The high school examination is termed S.S.L.C. in Madras, Kerala, Mysore and part of Andhra Pradesh, S.S.C. in Maharashtra and Gujarat, S.S.E. in Bihar, School Final Examination in West Bengal, Matriculation in Punjab, High School in Rajasthan and Madhya Pradesh, H.S.C. in Andhra (Telangana) of 10 years of schooling except in Bihar, Telangana area of Andhra Pradesh, Western Maharashtra and Gujarat where it is held at the end of 11 years. The candidates who pass this examination are eligible for admission to pre-university course of one year leading to a three-year degree course at the university except in Western Maharashtra, where there is no pre-university course and the students have to join the intermediate course of two years leading to two-year degree course. The boards of Madhya Pradesh, Rajasthan and the Punjab University hold intermediate examinations side by side with higher secondary examination for the benefit of candidates who have to attend two years in intermediate colleges and for private candidates. Candidates who pass the intermediate examination are normally eligible for admission to the second year of the three-year degree course.

Besides the high school and higher secondary examinations, multipurpose school examinations are also held by the various Boards. These multipurpose courses are also of different durations. In Andhra Pradesh and Bihar the external examination is held at the end of 12 years while in Madras and Kerala it is held at the end of 10 years and in the remaining Boards 11 years. Candidates who offer technology, agricultural and commercial subjects of the Higher Secondary Multipurpose Examination are normally eligible for admission to the pre-professional course of one year leading to the degree course of professional colleges but the universities seem to prefer candidates who pass the pre-university examination.

The study of the examination load is also interesting. A candidate for the high school examination has to study six to nine subjects. In the Boards of Kerala and Andhra Pradesh, the candidates study six subjects (all compulsory). In Mysore and Rajasthan they have to answer 11 papers, each of 2½ hours' duration in 9 subjects of which six are compulsory and three are optional. In Kerala one has to study only six subjects and answer 11 papers, each of 2 hours' duration while in West Bengal there are ten papers of three hours' duration each.

Normally, a candidate for high or higher secondary in Bihar, has to answer nine papers each of three hours' duration but he is permitted to offer an extra paper, the marks obtained in which are counted for the award of divisions.

There is also a provision for exchange of subjects if a candidate has passed in the extra paper but failed in any of the regular papers. In Maharashtra and Gujarat a pupil has to offer a minimum of 7 subjects in seven papers of three hours duration each but he is permitted to offer one or more extra papers and the marks obtained in them are counted for divisions.

There are divergent practices in the award of maximum and minimum marks for the entire examination. In Andhra Pradesh there is a maximum of 700 marks for all the papers, and the minimum required for a pass is 210 in the aggregate with a separate minimum of 30 per cent in individual subjects. In Madhya Pradesh the maximum is 500 and the minimum required for a pass is 185 and a minimum of 33 per cent in individual subjects. In Kerala there is a maximum of 700 marks and the minimum of 260 marks in the aggregate with a separate minimum of 40 per cent in Regional Language and in English, and 35 per cent in other subjects.

In Madras the maximum is 600 and the minimum for eligibility is 40 per cent in English and regional language, 35 per cent in two other subjects provided the candidate secures 225 marks in the aggregate.

At the higher secondary examination in Andhra Pradesh there is a maximum of 1,000 marks, and a candidate has to secure a minimum of 350 marks in aggregate and 30% minimum in individual subjects. In Delhi there is a maximum of 800 marks and a candidate has to secure 264 in aggregate and a minimum of 33 per cent in individual subjects. In West Bengal even though a candidate has to study 10 subjects, he has to appear only in five subjects (two compulsory and three electives) at the final examination, the other five subjects being examined internally at the end of the 10th class, and the marks obtained in them are shown side by side with the Board examination marks in the marks list supplied to the candidates. In Madhya Pradesh the core subjects of social studies, general science including elementary mathematics and crafts are assessed internally at the end of standard X. In Rajasthan these subjects are examined externally at the end of standard X as Higher Secondary Part 1 but the marks are not added to the marks obtained in Part II at the end of standard XI.[1]

VII. WELFARE OF YOUTHS AND CHILDREN

INTRODUCTION. — The strength of a nation lies more in the quality of its people than in its material resources. A nation of weaklings can neither attain nor retain independence. The child and youth are the cream of society and thus form the real wealth of a nation. It is on their quality that the greatness of a nation depends, because the children of today are the citizens of tomorrow.

India cannot afford to neglect her vast human material, and our new schemes of national reconstruction cannot overlook the need for improving the health of the nation. Thus it is very necessary for us to pay attention to (1) physical education, (2) medical inspection and (3) youth welfare.

PHYSICAL EDUCATION: *Importance.* — Physical education is the first requisite not only for national but also for individual development. It provides that fund of energy which is so very necessary for every person to withstand the wear and tear of the struggle for existence. Besides bodily development, physical education also aids the development of mental capacity and character. It tends to cultivate proper sentiments, refreshes the individual and prepares him to derive full benefit from his mental studies. It also develops many desirable qualities like agility and elegance, initiative and endurance. Until and unless such qualities are developed, there is every danger that a man with plenty of strength and intelligence but without character may turn out to be a dacoit or a war-monger. A well-organised programme of physical education inculcates habits of discipline and patience, fortitude and self-restraint. It trains a person to take defeat as cheerfully as victory.

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[1] Hari Das. 'Pattern of Examinations Conducted by the Boards', *Educational India*. April, 1964. pp. 338-44.

Its Place in Schools and Colleges. — Some forms of drill, physical training and games were prescribed, though in a restricted sense, in most of our schools since the advent of the British rule. In the absence of well-trained teachers, the work was entrusted to ex-army personnel or gymnasts and wrestlers. Games were restricted to a few people and some western games, such as cricket enjoyed the highest preference, and indigenous types of games and physical activities were looked down upon and discouraged.

With increasing responsibility in government, we have come from "drill" to "physical education", which is now compulsory for all boys and girls in schools and colleges. Claims of indigenous games and exercises have also been recognised. But the programmes of physical education are not comprehensive enough in all the States, and only a few hours are devoted to this subject. There is a dearth of well-qualified teachers, seventy-five per cent. of our existing schools are without proper play-grounds, and about sixty per cent. of our school buildings are ill-ventilated and unsuitable for school purposes.

Voluntary Organisations. — Voluntary organisations such as Scouts, *Akhadas*, *Bratacharis*, *Rashtriya Seva Dal*, *Rash-*

triya Seva Sangh, etc. have attracted a large number of youths into their folds. Almost all of these organisations give an important place to physical fitness activities, such as games, parades, drills, outings and campings. The formation of the Indian Olympic Association (1924) with its provincial branches has given a great impetus to sports and games. The National Association for Physical Education and Recreation was set up in 1946. Its main objectives are to promote and popularise education and recreation, and all kinds of healthy activities, particularly indigenous activities. The Association organises annual conferences at which problems pertaining to physical fitness and recreation at all levels are discussed.

Activities of the Union Government. — The Government of India has shown a keen interest in the promotion of physical education in the country. The physical education programme of the Government is generally based on the recommendations of the Central Advisory Board of Physical Education and Recreation. The Board, which has recently been reconstituted, has been set up by the Government to advise them on the coordination of all programmes and activities in the field of physical education and recreation. A valuable contribution of the Board has been the publication of 'A National Plan of Physical Education and Recreation' which gives a comprehensive survey of the existing condition of physical education and recreation and contains valuable suggestions—immediate and long-term—for their improvement. It also includes two syllabuses of physical education for boys and girls separately up to the higher secondary stage. It is felt that the introduction of these two syllabuses in schools will go a long way towards achieving uniformity of physical education facilities in the schools in various parts of the country with due regard to local variations.

The Government of India has also taken the following steps for the encouragement of sports: (1) the establishment of the All-India Council of Sports: (2) the setting up of State Sports Councils in the States and Union Territories, and (3) rendering assistance to State Governments and national sports organisations for the construction of utility stadia.

A National Institute of Sports has been established at Patiala. It trains first class coaches in all games under the guidance of foreign experts. It lays special emphasis on popularising sports and games in educational institutions and in rural areas, besides the continuation of the existing schemes for the promotion of sports and games. The institute has initiated a scheme of regional training centres.

National Cadet Corps. — On July 15, 1944, the N.C.C. was organised with the following aims:

1. To develop character, comradeship, the ideal of service and capacity for leadership in young men and women;
2. To provide service training to young men and women so as to stimulate their interest in the defence of the country; and
3. To build up a reserve of potential officers to expand rapidly in a national emergency.

The enrolment in the N.C.C. is entirely voluntary, and there is no liability for military service. It undertakes the training of youths between the ages of 13 and 26, and is divided into three divisions, viz., Senior, Junior and Girls. The Senior and Junior Divisions are composed of three Wings — Army, Navy and Air Force. The Army Wing has units of the Armoured Corps, Artillery, the Corps of Engineers, the Signals Corps, the Infantry, the Corps of Electrical and Mechanical Engineers, and the Medical Corps.

The strength of the Corps, as on January, 1963, was 3,28,250, comprising 2,91,620 boys of the Senior and Junior Divisions and 36,630 girls of the Senior and Junior wings.

In 1960, two new categories, namely, Officers' Training Units (OTU) and Rifles, were introduced in the Cadet Corps organisation. The strength of the NCC Rifles as on January 1, 1963, was 6,98,000 cadets and officers, while that of OTU was 810.[1]

Auxiliary Cadet Corps. — There has been an ever-increasing demand from more and more boys and girls to join the N.C.C. Owing to financial difficulties, it has not been possible for State Governments to meet this increasing demand; and an inexpensive supplement to the N.C.C., the A.C.C. has been introduced in schools and colleges. All students, both boys and girls between the ages of 12 and 23, are eligible for admission to this Corps. The training in A.C.C. has always laid more emphasis on educational rather than military aspects. Its instructors selected from schools are trained by regular Army staff of the various N.C.C. units. This movement, which started with 70,000 boys and girls in 1952, has now multiplied several times in its strength in less than five years. The strength of the Corps at the end of 1962 was 1,273,440.[2]

MEDICAL INSPECTION: *Present Position.* — Closely associated with physical education are the important problems of medical inspection and nutrition of school children. The medical inspection of our schools is of recent origin, but it is too perfunctory and haphazard. Among the main difficulties are: shortage of funds, absence of school clinics, lack of follow-up-work and non-existence of effective contact between the school authorities and the parents. There is the dearth of medical personnel too, which can be realised from the fact that:

> there is one doctor for very 63,000 population, one nurse for 43,000, one midwife for 66,000, one health visitor for 400,000 of the population and so on. Seventy-

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[1] *Indian Year Book, 1963.* p. 64

[2] *Loc. cit.*

five per cent. of the doctors, it is further reported, are in the urban areas.[1]

Further, there is nothing like a school medical service, and a definite policy as to which State department should be entrusted with this important work is absent. The services of medical officers, mostly of the Medical Department or of Municipal and District Health Officers, are utilised for the purpose. Medical inspection is mostly confined to secondary schools of towns and cities. Village schools are seldom inspected and girls are in most cases left out of the picture altogether. Thus medical inspection barely touches the fringe of school population and as such it deserves to be systematised on proper lines.

Organisation. — Thus there is an urgent need for organising a proper school health service whose main duties should be: (1) to fit the child to receive the education provided for it by the State; (2) to detect any departures from the normal physiological health and growth, any impairments, aberrations, defects or diseases (physical or mental), and prescribe the remedy or amelioration of them (at school or elsewhere) lest worse should befall; (3) to seek the causes and conditions of such defects and diseases, and, as far as possible, to prevent them; (4) to teach and practise personal hygiene in every school.

In almost all the western countries, the school sytem has developed a new limb in the shape of a medical service, which embraces the normal as well as abnormal pupils. As early as 1907, the Board of Education in England was entrusted with the duty of medically inspecting children on entrance into the elementary school. Since then, its medical service has been of mature, creative and responsible members of the true society.[1]

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[1] Planning Commission. *Social Welfare in India, op. cit.*, p. 36.

In the present day conditions, youth welfare activities also include the work during vacations or at the end of studies. Such work may be undertaken in the country-side or in towns away from the class room.

Youth Welfare Committees. — In every school, college and university, students form organisations for co-ordination and promotion of youth activities which spread out in diverse directions to cover essential aspects of youth life. Besides these institutional organisations, larger units of youth welfare and social services have been set up in such towns where there are a number of colleges and schools. These area youth welfare committees consider the detailed needs and problems of students in their areas, and assist in solving local problems, such as providing playgrounds, organising sports, looking into living conditions of students, etc.

New Programmes. — With the advent of independence, the Government of India gave serious thought to problems of the youth. In the Seminar held by the United Nations in Simla in 1951, it was felt necessary to mobilise and give a proper direction to the abundant energy of the youth. A Youth Welfare Section was set up in the Ministry of Education in May, 1955. The highlights of the endeavour in the field of youth welfare have been as follows:

1. Organisation of annual inter-university youth festivals since 1954 and assistance to universities for the organisation of inter-collegiate festivals;
2. Holding of youth leadership training camps, where short-term training is imparted to selected teachers in the promotion of extra-curricular activities;

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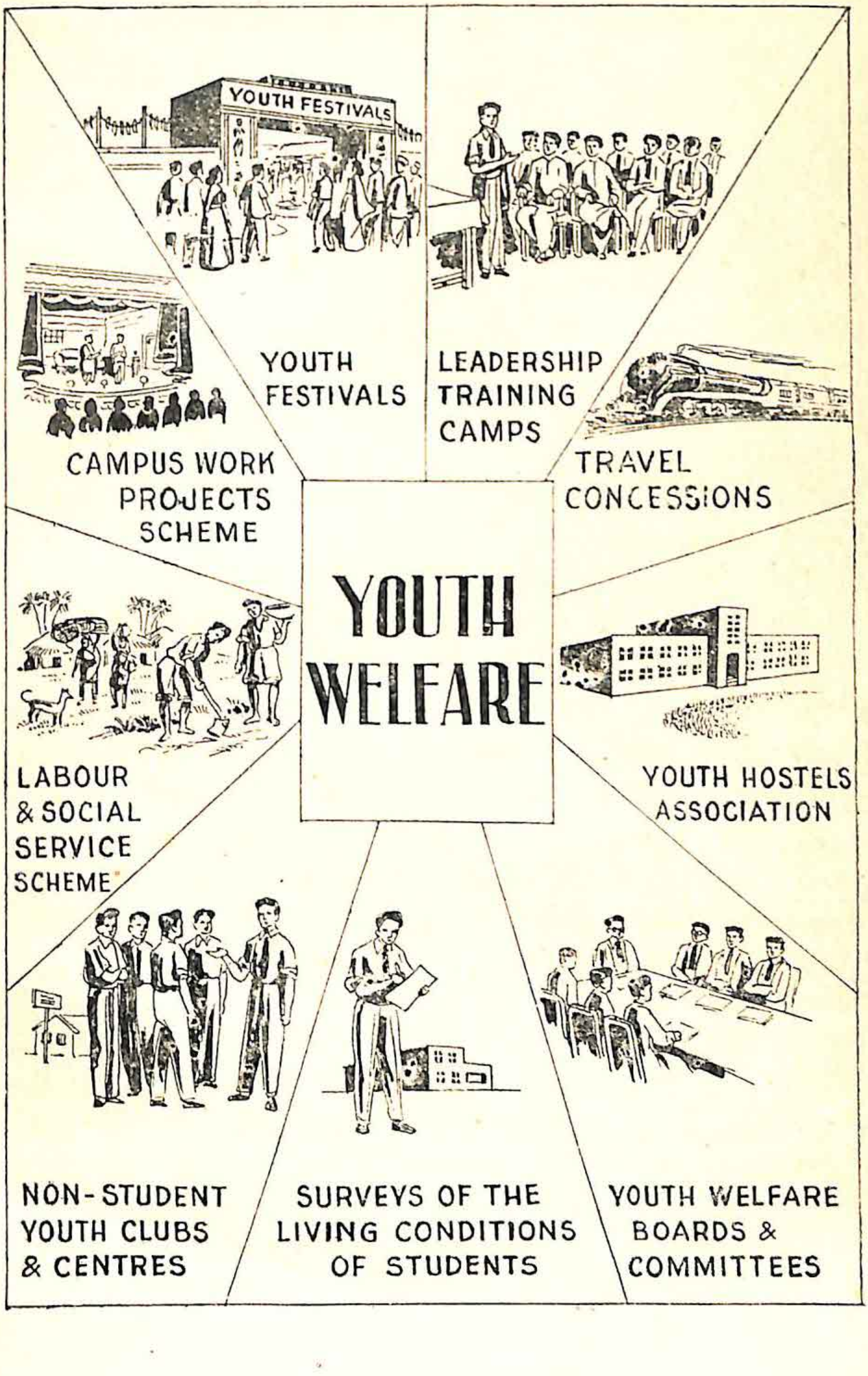
[1] *Ibid.* p. 53.

ILLUSTRATION 10



3. Travel concessions and financial assistance for organising youth tours to places of historic, scenic and cultural interest and to development project areas;

4. The establishment of the Youth Hostels Association of India and the setting up of youth hostels all over the country;

5. Assistance to universities and State Governments in the promotion of youth welfare boards and committees for the successful implementation and co-ordination of youth welfare activities;

6. Pilot surveys of the living conditions of students at selected university centres;

7. The setting up of non-student youth clubs and centres;

8. The Labour and Social Service Scheme to inculcate the sense of dignity of manual labour in students and to bring them into contact with villages; and

9. Campus Work Projects Scheme to provide amenities such as gymnasia, swimming pools, open air theatres-cum-auditoria, etc. to universities and other educational centres.

These activities have widened the outlook of students, and have given them opportunities for social service. The students' participation in social service is approached from two points of view—educational and economic. It is submitted here that a broad consideration of all the issues involved will lead to the conclusion that the economic approach is not a correct or a desirable one and that the case for or against students' participation in social service has to be based primarily on the place it occupies in any sound educational system.

NATIONAL DISCIPLINE SCHEME: *Background.* — The idea of launching such a scheme of national discipline took shape after the Prime Minister, Shri Jawaharlal Nehru, in an address early in 1954, to NCC cadets in Delhi, exhorted them to be ready to defend the country in times of emergency. To give shape to the scheme its originator Shri J. K. Bhonsle, the then Deputy Minister for Rehabilitation, drew on his study and experience of Japan and other countries and the methods used there to teach students to value discipline and how national greatness has been built on this sense of discipline, faith and spirit of sacrifice that flows from it.

To begin with, Shri Bhonsle introduced the scheme in Kasturba Niketan, an institution in Delhi for displaced widows and their children and orphans. The Prime Minister had a chance to witness the results achieved when later in 1954 he inspected a parade of trainees in Kasturba Niketan. He was impressed and he suggested the introduction of the scheme all over India.

Encouraged by the warm public response, the scheme was further extended in whole of Delhi and was introduced in Faridabad, Rajpura, Ulhasnagar (Bombay), and Jullundur. In spite of the small allocation of only one lakh of rupees for 1954-55, a start was made in training 24,881 students in 19 institutions. By the end of 1956, about 69,000 children were getting the benefit of the National Discipline Scheme. Subsequently, the Planning Commission, after carefully examining the expansion proposals, allocated fifty lakh rupees for the Second Plan period.

On the recommendations of the Planning Commission, the Scheme was included by the Union Education Ministry as a branch of physical education in the Second Five-Year Plan. By 1961, nearly 800,000 pupils in secondary schools in India came under the scheme. Bold proposals for the expansion of the National Discipline Scheme during the Third Five-Year Plan at a cost of at least Rs. 6 crores are being implemented.

Activities. — The National Discipline Scheme is a five-pronged drive to accelerate the pace of progress of the country through carefully chalked out programmes. The Scheme envisages physical development of children through squad drill, parade, physical training, sports, games and calisthenics. There are more strenuous exercises like Malkhamb, Lezim etc. through which the young are able to attain a greater degree of physical proficiency. There is also psychological approach in the training schedule which is more popularly called, "spirit-infusing training". Through lessons on vanished glories of the culture of the country, good citizenship and character-building as also the material and idealistic attainments of the past heroes, a proper atmosphere for enthusiastic participation in nation-building programme is built up. The respect for the national flag and correct manner of the singing of National Anthem and the use of National Salute "JAI HIND" further helps to instil a patriotic fervour in the children.

Participation in emotional and integration songs of various regions of the country promotes a more harmonious development of the children and performance in folk dances of different regions of the country depicts the rich cultural heritage of our vast country.

A sense of leadership and self-confidence is instilled by entrusting to the children some important assignments independently. This practical experience coupled with theoretical training in basic methods of organisation and administration brings out the latent potentialities in young.

The training in short makes for the moulding of a complete man, where book-learning is combined with exercises for healthy physical development, an intensely human feeling is cultivated alongside a tough nature, to face situations unruffled as they arise in life. This is the stuff which the National Discipline

Scheme seeks to drill into every young mind and thereby make of him a finer man and a better citizen.

Training Institutes. — It is necessary to have qualified persons to guide the youngster for proper participation in the National Discipline Scheme activities. The Scheme has accordingly set up the Training Institutes which offer a six months' training course in accordance with a prescribed syllabus to fresh recruits who must be at least Matriculates and within the age group of 18 to 25. The existing two centres at Sariska (Alwar) and Barwaha (M.P.) impart training. to a batch of about 650 boys and girls drawn from all parts of the country. The day in a training institute begins early in the morning and continues till lights are out at night. The entire day is fully packed with drill, P.T., Lezim, Malkhamb, gymnastic, sports, lectures, community and folk dances. The activities are carried out in accordance with the set time-table and with meticulous care and precision. They are required to undergo theoretical and practical examinations and only those who come up to the prescribed standard are declared qualified National Discipline Scheme Instructors.

The qualified Instructors are posted in various schools and normally a group of 400 children is placed under the charge of an instructor. The Scheme has already covered 15 lakh children in 2,500 schools spread in all different States of the country. This has been made possible through 4,300 qualified instructors. The educational institutions are provided with essential equipments like band, Malkhamb, Lezim, sports material and even uniform. It may surprise many, but the cost of training does not exceed Rs. 4 per child for the whole year. This has invoked even Pandit Nehru's remark that the National Discipline Scheme has really produced very good results for the money spent on it.

Scheme made Compulsory. — According to an announcement by the Union Ministry of Education, an integrated programme of National Discipline and Physical Education has to be introduced in all the schools of the country and the children in standards 6 to 11 and in the age-group of 9 to 16 *plus* numbering over 1·02 crores have to be brought under the purview of the Scheme. It is estimated that a total strength of about 25,000 qualified National Discipline Scheme instructors are needed to implement this decision. A short-term re-orientation course of three months' duration has been prescribed for the in-service P.T.I.s. This will enable them to discharge their duties fully for the physical, mental, moral and even spiritual development of the children in their charge. Five Training Centres have already been established for P.T.I.s at Meerut, Panchkula (Punjab), Jabbal (H.P.), Indore (M.P.) and Amravati (Maharashtra). It is contemplated to establish additional ten centres to cover all able bodied and young physical instructors. Since they have already had professional training in physical education, a greater emphasis is laid on the intellectual and other aspects of the training in National Discipline Scheme. They will be paid a special allowance of Rs. 15 per month to cope with the specialised nature of work in imparting training to the children in the National Discipline Scheme.

Conclusion. — The National Discipline Scheme thus presents a comprehensive and integrated programme to produce great men in all walks of life. The sponsors of the Scheme are fully aware that a slumbering sense of centuries old emotional and cultural unity of our country needs to be awakened by recalling to the mind of our children, the glory of our past and richness of our heritage. Once we succeed in arousing that feeling in the minds of our youth and appeal to their sense of patriotism, we would have securely laid the foundation for the future of the country.

COORDINATION OF PHYSICAL EDUCATIONS. — On May 28, 1959, the Union Ministry of Education has set up a nine-member co-ordination committee with Shri Hirdaynath Kunzru, M.P., as the chairman, to examine the question of co-ordination and integration of different schemes and programmes in the field of physical education, recreation and youth welfare. The terms of reference of the committee are as follows:

1. To evaluate the respective merits and to define the role of various schemes for physical education, recreation, character-building and discipline operating in educational institutions;

2. To recommend measures for the proper co-ordination of approved schemes in order to avoid duplication and wastage of resources; and

3. To examine ways and means of developing the most useful schemes and activities for the promotion of physical education, recreation, character-building and discipline among students.

The following activities and organisations will come, inter-alia, within the purview of the Committee: scouting and guiding, N.C.C. and A.C.C., national discipline scheme and other character-building schemes, physical education and recreation, promotion of youth welfare activities such as youth festivals, youth tours, youth hostels, leadership and dramatic camps, youth welfare boards and committees.

CHAPTER ELEVEN

SOME EXPERIMENTS IN EDUCATION

INTRODUCTION

We have discussed the main problems of Indian education in the foregoing pages. It will be necessary to describe here a few of the educational institutions, which sprang up in the country independently of government and have done pioneering work in the educational field. Several of them succumbed due to the indifference and hostile attitude of the British. A few have, however, survived. Among the survivors are the Gurukulas; S. N. D. T. Women's University, Bombay; Visva-Bharati; Vidyapthas; Jamia Millia Islamia, Delhi; Hindustani Talimi Sangh, Sevagram; and Sri Aurobindo International University Centre, Pondicherry.

THE GURUKULAS

With the reformation of Hinduism during the last century, it was considered necessary by some Hindu reformers to revive the ancient *gurukula* system of Indian education. "Back to the Vedas" was the slogan raised by Swami Dayananda Saraswati, and two notable *gurukulas* were established by the Arya Samaj in the beginning of the present century. They are the Kangri Gurukula (near Hardwar) and the Brindaban Gurukula. They were started with the object of reviving the ancient institution of *brahmacharya*, of rejuvenating ancient Indian philosophy and literature, and of producing good citizens and preachers of Vedic religion. Both the institutions are residential in character and are situated in the lap of nature away from the devitalising and contaminating influences of city life. The atmosphere of a *tapovan* (hermitage) is thus maintained.

The Brindaban Gurukula was originally started at Secundrabad (1902) and was later shifted to Brindaban (1911) near Mathura, the birth-place of Shri Krishna. It is managed by the U. P. Aryapratinidhi Sabha. The Kangri Gurukula owes its inception to Swami Shraddhananda and was started at Guiranwala in the Punjab in 1920. It was later shifted to its present site. It is managed by the Aryapratinidhi Sabha of the Punjab. During their sixty years of existence, both the *gurukulas* have developed into full-fledged universities and have succeeded in attracting a large number of students not only from different parts of India, but also from distant corners of Asia and Africa.

The working and details of both the universities are more or less the same. A child is admitted between the ages of 6 and 8. He becomes a *snataka* or graduate after a course of fourteen years, and receives *vachaspati* (M. A.) degree two years later. The medium of instruction is Hindi and a great importance is attached to the study of Hindu Culture and Sanskrit literature.

The *gurukulas* are Spartan in character. Co-education is absent and the study of fine arts is neglected. A student has to pass through a simple but absentious life and to undergo a daily routine of early rising, physical exercise, play and *homa* (sacrificial rites). He is required to take a vow of celibacy and to remain a bachelor till the age of twenty-four. His diet is strictly vegetarian and he cannot take stimulants. Thus the key-note of the *gurukulas* is *brahmacharya* — the time-old system of India. The Ayurvedic Departments of both the *gurukulas* are doing good work. They are preparing effective *ayurvedic* medicines and are also conducting medical classes. Students ranging between the age-groups of 6 and 21 are admitted. Hindi is the medium of instruction. Even these students have to pass through the rigorous discipline of *gurukula* life.

Quite recently, a college of agriculture has been established at Haradwar. This has fulfilled a long-felt need in the Gurukul system of education all over the country. Partly financed by the various States and partly by the Central Government, this college is gaining popularity every day. Agronomy, agricultural economics, botany, zoology, soil conservation, animal husbandry, dairy farming and horticulture are some of the subject taughts in the college.

The Gurukula Kangri University has a separate section which is busy in preparing an English-Sanskrit-Hindi lexicon, incorporating in it the terms used in various regional and the original languages in the country. It has also a well-equipped library and a rich museum containing several valuable things. Its extra-curricular activities include outdoor games, swimming, hiking and other important sports which help students to become self-reliant in all walks of life.

The management of the Gurukul Kangri is under the Vidya Sabha which is a subordinate body of the Arya Pratinidhi Sabha of the Punjab. The post of the Governor and of the Vice-Chancellor are combined into one.

Following the above ideals, two important *gurukulas* have been started for the fair sex also. They are the Kanya Gurukula of Dehradun and the Arya Kanya Mahavidyalaya of Baroda. Students of these institutions have to lead a life of strict *brahmacharya* and cannot be married or betrothed before the age of sixteen. Both the institutions attach a great importance to special educational needs of the fair sex. The Baroda Arya Kanya Mahavidyalaya, however, lays a great stress on physical education also.

S. N. D. T. WOMEN'S UNIVERSITY

This University owes it origin to a school for Hindu widows started by Prof. D. K. Karve at Poona in 1896. This small school very soon developed into a big institution with the combination of a hostel, a primary school, a secondary school and a training school for primary teachers. The institution was so well managed that many parents began keeping even their unmarried daughters in the hostel.

This encouraged Prof. Karve to devise a new scheme of higher education for Indian girls. He fervently believed that the educational needs of men and women are entirely different since they have to play different roles in life. With that idea in view, he drafted a special curriculum well-suited to Indian girls as future wives and mothers and which could be completed before they reached the age of 18, after which an Indian girl seldom remained unmarried in those days. Prof. Karve also held that Indian women could be more truly educated and could be more serviceable to their country, if they did their best thinking through their mother-tongue.

The Indian Women's University was started in 1916. It has been shaped according to Prof. Karve's ideals. The University is in some ways a unique national institution for the education of women. It attracts students not only from different States of India but also from abroad. The special features which distinguish the University from others are:

1. It is mainly concerned with higher education of women;
2. It carries on its teaching work through the medium of the mother-tongue;
3. Its courses of study include subjects such as music, drawing and painting, and home science, which occupy a position of distinctive importance in the educational and cultural development of women; and
4. It has a system of external examinations for private students which provides opportunities of education to those women who cannot join as regular students but wish to pursue their education, by studying at home.

The headquarters of the university were removed to Bombay is 1930. It is now associated with the name of Shrimati Nathibai Damodbar Thackersey, the mother of a famous Bombay merchant who donated a large sum to the University in her memory. The University was given statutory recognition by the Government of Bombay in 1951. It runs colleges at Bombay, Baroda, Poona, Surat, Bhavnagar and Ahmedabad, and has a number of schools scattered all over Maharashtra and Gujarat and even outside. It has also made provision for the training of primary and secondary teachers.

VISVA-BHARATI

The Visva-Bharati grew out of Santiniketan Ashrama formed by Maharshi Devendranath, the father of Poet Rabindranath Tagore, in 1863. The Ashrama was meant to be a retreat where seekers after truth might come and meditate in peace and seclusion. In 1901 an experimental school was started at Santiniketan by Rabindranath Tagore with the object of providing for an education which would not be divorced from nature, where the pupils could feel themselves to be members of a large community and where they could learn and grow in an atmosphere of freedom, mutual trust and joy. Since 1921 Santiniketan has been the seat of the Visva-Bharati, an international university seeking to develop a basis on which the cultures of the East and the West may meet in common fellowship. The Visva-Bharati has recently been given statutory recognition by the Act XXIX (1951) of the Indian Parliament. It has the following objectives:

1. To study the mind of man in its realization of different aspects of truth from diverse points of view;

2. To bring into more intimate relation with one another through patient study and research, the different cultures of the East on the basis of their underlying unity;

3. To approach the West from the standpoint of such a unity of the life and thought of Asia; and

4. To seek to realize in a common fellowship of study the meeting of the East and the West, and thus ultimately to strengthen the fundamental conditions of world peace through the establishment of free communication of ideas between the two hemispheres.[1]

The Visva-Bharati is a residential university with students and teachers drawn from all over India and there is always a fair mingling of teachers, students and visitors from abroad. One of the many valuable privileges and opportunities available to students of the Visva-Bharati is that a student by joining any one of the educational departments is allowed (without having to pay extra fees) the benefit of attending classes or courses in any other department, provided the student shows a marked aptitude for such a learning.

Overseas and foreign scholars are admitted to the colleges and courses of study both as regular and as casual students. Special courses are arranged for such casual students in the post-graduate stage for the study of oriental languages such as Bengali, Hindi, Sanskrit, Pali, Chinese and Tibetan as well as in Ancient Indian History, Indology and Indian Philosophy. There are facilities also for such students for the study of Indian art and dancing. Scholars from all countries share the same community life and participate in all community activities.

Santiniketan is situated in a calm and quiet place, away from the bustle and hustle of the work-a-day world. The various constituent colleges of the university are: Vidya-Bhavan (College of undergraduate and postgraduate studies and research), Siksha Bhavan (Higher Secondary), Kala-Bhavan (College of Fine Arts and Craft), Sangit Bhavan (College of

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[1] *Visva-Bharati Prospectus*, n. d., p. 1.

Indian Music and Dance), Vinaya-Bhavan (Teachers' College), and Silpa-Sadana (College Industry Training Centre). The Library of the Visva-Bharati is one of the finest of its kind in Asia and has a collection of about 165,500 Mss.

Classes are held under the canopy of heaven and the development of individuality in its manifold aspects is the aim of the institution. Full scope is given to spontaneous expression of different tastes and aptitudes of each and every individual. The curriculum is very broad. In addition to the subjects we are familiar with in an average Indian school, there is provision for the teaching of painting, sculpture, etching, wood-carving, music and dancing. Expert teachers are in charge of these departments.

The Visva-Bharati also lays a special emphasis on the social side of pupils. The care of the weak, the maimed, the indigent and the backward is an example of the humanitarian work of the institution. It also keeps itself in touch with the poverty-stricken masses of the neighbourhood. An honest effort is thus being made to alleviate their sufferings and to provide a ray of hope to the down-trodden.

Besides the academic institutions or Bhavans at Santiniketan, the University conducts the Rural Institute of Higher Education[1] at Sriniketan, a self-contained village, one mile to the West of Santiniketan connected by road and telephone.

The Poet expired more than three decades ago, but the atmosphere of Santiniketan is still pervaded with his personality. The whole surrounding of the institution has a poetic atmosphere. The rural simplicity, the high idealism of the institution, the ripples of the Kopai, the tender leaves and flowers of the garden and the music of birds invest Santiniketan with a charm and attractiveness that few places in India can rival. Thus it can be said that the wishes of the Poet have been partially realised. The Visva-Bharati is a centre of Indian renaissance. It is a seat of international learning. At the same time, it is dong solid work for social and economic uplift of the nation.

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[1] *Supra*. p. 192.

VIDYAPITHAS

In the wake of Mahatma Gandhi's national movement in 1920, a number of national universities known as *vidyapithas* sprang up. They were started at Poona, Ahmedabad, Banaras, Lahore, Patna and Aligarh (transferred to Delhi later on), and were associated with some prominent personalities. They were established for satisfying national aspirations, for promoting Indian culture and civilisation and for developing Indian languages.

Thus the *vidyapithas* were started with a spcial aim. It was hoped that they would work out a national plan of education, which would fit young men and women to be worthy and patriotic citizens devoting themselves to national regeneration. The study of Indian languages and cultural history of the land occupied a prominent place in the courses of study, and the mother-tongue was used as the medium of instruction. The *vidyapithas* did not care for government grants, as they did not want to sacrifice their independence for a small sum of money.

In the initial stages, the *vidyapithas* had their own teaching departments and conducted their own examinations. They used to grant their own degrees and diplomas. Many patriots had joined them as teachers on very small allowances. But with the failure of the Non-Co-operation Movement, all the *vidyapithas* (with the exception of the Jamia Millia of Delhi) became defunct bodies. The problem of men and money faced them, and pupils cared for the degrees and diplomas of recognized universities.

The Gujarat Vidyapitha, Ahmedabad has, however, resumed its work. It is at present conducting following institutions and activities:

1. *The Basic Experimental High School* (Stds. I-XI), giving a complete course in basic education.

2. *Mahadev Desai Samajseva Mahavidyalaya* — 3 years' course for matriculates.

3. Basic Teachers' Training Institution for primary teachers.

4. *Rashtra Bhasha Prachar* — (spreading Hindi in Gujarat) through (a) conducting training classes for workers, (b) holding bi-annual examinations in Gujarat and (c) preparation and publication of Hindi books.

5. *Publication* — about 200 books have been brought out so far.

6. *Library-work* with about 86,000 books.

7. *Vallabh Vidyalaya, Bochasan Service Centre* — preparing village workers for working among the backward classes.

8. *Ambethi Shukla Centre* — an Ashram School for *adivasi* children and a centre for social education[1].

JAMIA MILLIA ISLAMIA, DELHI

Another *vidyapitha*, which has risen to eminence, is the Jamia Millia Islamia (Muslim National University) of Delhi. It was started at Aligarh in 1920 but was shifted to Delhi five years later.

The Jamia Millia was meant, by its founders, to be an institution of higher learning. Its aim was to meet the requirements of young men who did not look upon education only as a means of getting employment under government, but aspired to develop qualities of good citizenship and be worthy representatives of their culture — young men who were willing to make their own way in life and contribute effectively to national development. Education in the Jamia Millia was to integrate Indian culture internally and also with the culture of the West externally. Muslim and non-Muslim students would learn to represent the values of their religion and of their moral and cultural traditions, and would distinguish themselves because of their refinement, modesty, thoughtfulness and competence.

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[1] *Prospectus of Gujarat Vidyapitha*, 1954-55.

The Jamia Millia could not have achieved anything itself nor prepared the ground for a better system, if it had just followed the prevalent pattern of educaion. Happily, it was debarred from this because its degrees were not recognised. It had to strike out new paths to justify itself and derive full advantage from the freedom it enjoyed to devise its own system and frame its own curriculum, in other words, to determine the principles, contents as well as the methods of its education. The need to build up a system that was necessarily different and possibly better, called into play all the initiative the teachers of the Jamia Millia possessed, and nothing was too bold or unorthodox for them if they could learn enough to make a start.

There were other factors also which led the institution in that direction. The political circumstances during British rule were such that the Jamia Millia had to find the resources to maintain itself and expand its work. Even normal recurring expenditure was raised by public subscriptions. The institution had to explain to the public the ideas and aspirations on which its educational system was based and to bring together education and society in a manner that is now considered essential for sound education.

The Jamia is conducting the following educational institutions at present:

1. A residential college, imparting higher education in the arts and social sciences. The college also gives practical training in agricultural sciences, social education and community development under the scheme of 'Rural Institutes.'

2. A residential multi-purpose higher secondary school on modern lines, laying special emphasis on the development of aptitudes.

3. A residential primary school, conducted mostly on the Project Method, with special emphasis on pupil-teacher co-operation.

4. An institute of adult education, which conducts experimental social education centres and has prepared 300 booklets for neo-literates.

5. A teachers' training institute, for training teachers and conducting experiments in the methods of basic education. In the Junior Course a Diploma and in the Senior Course a B. Ed. Degree are awarded.

6. The Maktaba Jamia Limited, a publishing house that has raised the standard of school text-books and made valuable contributions to academic and general literature.

7. A library for reference and study, consisting of nearly 20,000 books.

8. An institute of art education, for training art and craft teachers for the different stages of the existing primary and middle schools, high schools, higher secondary schools and multi-purpose schools.

9. An institute of rural economics and sociology, for post-graduate research in village economy and problems of rural development.

10. An institute of history and politics, to co-ordinate methods of teaching history at the college and high school levels and to prepare supplementary reading material.

11. An institute of rural education, for investigating into the various aspects of basic education, such as curriculum, techniques of teaching, preparation of literature, crafts, utilisation of craft products, evaluation, supervision and administration.

12. A nursery school, which provides educational facilities for the children of the staff of the Jamia Millia.

13. A research and production centre for the research, evaluation and production of literature for neoliterates.

This novel institution is conducted by a band of workers pledged to twenty years' service on a salary not exceeding Rs. 150/- a month and only those personally engaged in service are members of the body. The managing committee and office-bearers are elected from among these members. Thus the Jamia is not an ordinary educational enterprise, but is an autonomous community of workers.

HINDUSTANI TALIMI SANGH, SEVAGRAM

INTRODUCTION. — A comprehensive account of basic education has been given in Chapter Three of this book. It will, however, be necessary to give a bird's-eye view of the main activities of the Hindustani Talimi Sangh, Sevagram which is the main organ of Nai Talim.

This centre was set up at Sevagram in 1938 in accordance with a resolution passed by the Indian National Congress at its Haripura Session. The choice could not have fallen on a better place. Sevagram is itself a village, and is surrounded by about thirty more villages. The place is about five miles from Wardha railway station, and is a great centre of rural reconstruction, care of cattle and *Khadi* or homespun production.

Originally, the Sangh established a complete basic school of eight years, but in 1945 its scope of work was extended to cover a complete programme of Nai Talim or new education for the four stages of life, viz., (1) adult education, (2) pre-basic education, (3) basic education and (4) post-basic education.[1]

DEPARTMENTS OF WORK. — The following departments of Nai Talim are being conducted by the Sangh:

1. *Pre-Basic education* for pre-school age children. Children of the residential community are looked after in a 'balwadi'.

2. *Basic Schools* for children of 7 to 14 years. These are schools catering for the first 7 years of school life in 20 villages in the area. — The Sangh itself conducts a residential basic school, *Anandniketan*, for children from seven to fourteen.

The programme of Anandniketan includes sanitation, health-work, kitchen-work and gardening, cloth-making — from cultivation of cotton to finished cloth —, and recreational and cultural activities of many kinds. It may be noted that the children in the school are divided into groups and not classes. These groups are elastic and formed on a psychological basis, and children may be transferred from one group to another, if it seems likely that this will help their progress.

3. *Post-Basic Education.* — There is a residential post-basic school which provides for the further education of children, who have completed the basic course in Sevagram or elsewhere. It is planned on elastic lines as a 3-4 years' course suitable for pupils of 14 to 15 years

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[1] *Supra*, pp. 39-45.

of age and upwards. There is provision at present for education through following kinds of work: (1) agriculture, (2) fruit and vegetable gardening, (3) dairying, (4) oil pressing, (5) wood and metal work, (6) rural engineering and building, (7) weaving, (8) tailoring and (9) domestic science (especially for girls). The life of the school is so shaped as to develop consciously and to the full, the implications of self-reliance and responsible citizenship in a democratic working community as envisaged in the Nai Talim.[1]

4. *University Education.* — The Faculties of Agriculture and Animal husbandry, Rural Engineering, Health and Education are now either working or are in the process of organisation.

5. *Extension Services.* — These are closely related to university work. The following are the main activities: (1) service to a compact area of villages within a radius of 7-8 miles from Sevagram, with a view to developing in them the mental attitudes, skills and social organisation of a Sarvodaya Society, (2) the training of young men and women of 19 years of age or over in "Gramrachana Nai Talim" so as to enable them to do effective constructive work in villages influenced by the Bhoodan movement, (3) the training of teachers in the principles and practice of Nai Talim at all age levels.

Students in the post-basic, university and extension courses are drawn from all parts of India. Individual students from Africa, S. E. Asia, Europe and America also join these departments from time to time as guest-students for periods ranging from two weeks to several months.

THE SANGH'S MISSION. — The main aim of the Talimi Sangh is to build up a cooperative self-sufficient community; a community which will produce its necessities in food, clothing, shelter and tools, not as processes of production and commerce but as educational processes for a balanced life; a community which will be able to meet many of its aesthetic, spiritual and intellectual needs, creating its own art, music, literature and drama; and above all a community where man will be respected as a man and there will be no distinction of caste, class or creed; where all religions and faiths of mankind will be equally honoured.

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[1] *Supra.*, pp. 43-44.

It is gratifying to note that the Sangh has succeeded in its mission. Among its members are children and adults, pupils, teachers and workers, men and women from every part of India and of all castes, speaking many languages, following various religions. All the members of this community co-operate to meet their own essential needs. They look after the sanitary arrangements, carry out preventive health measures, work on the farm and in the community kitchen, learn the whole process of cloth-making from cotton to cloth, nurse the sick, eat together in the community kitchen and meet for community worship at the hour of dawn and in the evening. This community does not seek passive entertainment outside, but makes its own music, produces its own dramas, writes its own magazines, and organises celebrations, sports and festivals to which men, women and children from the surrounding villages are invited.

SRI AUROBINDO INTERNATIONAL UNIVERSITY CENTRE, PONDICHERRY

This famous educational centre, inaugurated on January 6, 1952 developed out of the Ashram School established by Sri Aurobindo in 1943. The Centre consists of three educational divisions — primary, secondary and higher. It admits students without distinction of race, nationality, caste, sex or creed. Education is provided free of charge. The teaching and administrative staff are not formally remunerated. The

Centre, however, provides lodging and basic personal necessities for each active member of the staff and his family, on a standard similar to that of the members of the Sri Aurobindo Ashram.

The main purpose of the University Centre is to provide for an integral education along the lines envisaged by Sri Aurobindo and in harmony with his teaching, and the Centre does not aim at competing with the existing universities. It conducts the following courses:

1. *Infant.* — Starting at the age of four a child is generally trained here for three years developing through educational games and activities.

2. *Primary.* — A four-year course with French, English and the mother-tongue of the student as languages, and object lessons in elementary science, mathematics, social studies and drawing as general subjects.

3. *Secondary and Higher Secondary* — A seven-year course including the two years of the intermediate course with the languages as in the primary course, and mathematics, physics, chemistry, natural sciences (botany, zoology, physiology, hygiene, geology), social studies, drawing as general subjects, and any one of the technial subjects listed in item (5).

4. *University.* — A three-year general course followed by a two-year course in higher studies. The subjects marked F are taught in French and the rest in English. Subjects — World integration (international relations), philosophy (Indian and western), psychology, sociology, history of civilisation, English literature, the science of life, mathematics (F), physics (F), chemistry (F), history of science (F), French literature (F).

5. *Technical Training Courses.* — Carpentry, elementary mechanical and electrical engineering, photography, painting, dramatics, shorthand and typewriting, book-keeping and commercial correspondence,

embroidery, cottage industries, tailoring, architectural drawing and draughtsmanship, vocal and instrumental music (Indian and European), dancing, nursing.

6. *Language Classes for Adults.* — English, French, German, Hindi, Tamil, Sanskrit.[1]

There is no religious teaching as such, for the Ashram is not attached to any particular religion. The aim of the University Centre is to help the student towards an all-round development of mind, life and body as instruments of the Psychic or the Divine Reality within him, to help him develop his whole being around this true central self, and look upon himself as an integral part of the universe which is a multiple expression of the same One Reality as is within him.[2]

The atmosphere of the Ashram is discouraging to all pretence and vanity. The visitor to the University Centre will find no ambitious monument in stone and mortar to the mighty Seer whose name it bears. He will, however, discern there the stirring of the spirit of the creative, integral education and the significant beginnings of a pioneering venture.[3]

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[1] *Shri Aurobindo International University Centre*. Pondicherry, Aurobindo Ashram, 1958 p. 15.

[2] *Ibid. p.* 11.

[3] *Ibid.* p. 21.

CHAPTER TWELVE

CONCLUSION

Since the attainment of freedom, India launched a number of comprehensive projects for her development. While these were on the way, she had to face a great national crisis due to the Chinese aggression which was launched hardly a couple of years ago. In this hour of country's need for a co-ordinated and concerted action to help in the cause of national defence, her youth and particularly young men spontaneously responded to the nation's call in emergency. A modern war does not merely involve the combatants at the front. Every citizen is involved in it. Thus the young students in our schools and colleges can contribute whatever they can according to their capacity ungrudgingly in any sphere of activity where their services can be most fruitful.

It may perhaps sound like an exaggeration, but history has more or less proved that a country which has a better and a more wide-spread system of education particularly technical and scientific would always be in a more advantageous position in a modern war. When the French were defeated at the battle of Sedan in 1870 by the Germans, it was said that it was the school teachers' victory. We, therefore, if we want to preserve with self-respect, independence which we have won after such a long struggle, will have to see that our whole educational system is so geared that while fully cherishing the ideals and values of true education which would teach us true values of life, toleration, respect for ideologies other than our own and foster ideas of world peace which would enable all countries to live peacefully and harmoniously in this world, it should at the same time prepare the nation for meeting emergencies of the type we are facing today.

The young man of today must, however, consider himself fortunate in being not only a citizen of free and independent India but also for the vast opportunities which our rapidly developing country offers to his ability and genius. Some of us educated and thrown into life in the years when the avenues of employment and occupations were restricted by the clamps imposed by foreign rule may well feel envious to the great vistas which open out to the young men leaving the universities today. The country is in need of the services of well equipped and trained personnel in every field of its development and growth. The National and the State Governments are spending crores of rupees on development, research and manufacturing projects. Our Five-Year Plans have unfolded heavier and vast development necessarily involving richer and greater fields for the young and earnest worker. None of these ventures for the building up of our land and raising its living standards can become successful unless we have properly equipped young men to work the various projects outlined in them. It is in these directions that great opportunities await the youths of today. There are no limits to the heights to which they may aspire. We are setting up laboratories and factories which can train and turn out scientists and technicians who can, in course of time to emulate the achievements of the United States, the Soviet Union or other European countries.

But the peculiar circumstances in which we find ourselves invest the educated youth of today with very great responsibilities. They are and will be the pioneers and in course of time some of them will be the leaders of our nation which recently freed from foreign domination has yet to establish its foothold in a race which it has to run; a race in which the more advanced nations of the West have a lead of nearly a hundred years over us. That of course is an extremely difficult handicap. Added to these are the difficulties created by the limited resources with which we have to equip ourselves in order to keep abreast of the times and give a good account of ourselves in the endeavour on which we are set. But success is bound to crown the efforts of those who strive hard and holds up their head. We have before us the examples of countries which have built themselves up and raised their standards of living almost up to the mark of those who had started earlier in the race, in the course of 40 or 50 years. In this connection, the phenomenal progress — educational, scientific and industrial — made by the Soviet Union is note-worthy in spite of the fact that since the revolution of 1917 it had to pass through devastating and destructive world wars. If every Indian citizen, young or old, thinks of his country and the development it needs there is no reason why our country should not make equally rapid strides in various directions in the course of the next two or three decades.

But the most pressing need of today is the development of a disciplined mind in our budding youths, who are the citizens of tomorrow. In fact, there has been a great deal of discussion about student indiscipline during recent years. An analysis of all the causes, which contribute to student indiscipline, would require a volume, but some of the main causes are mentioned here. These are: (1) laxity in school and college administration; (2) the loss of leadership by teachers; (3) an abnormal rise in the number of students without a proportionate increase in the staff, accommodation and equipment; (4) want of proper facilities for keeping the students engaged in healthy activities outside the classroom; (5) unsatisfactory constitution and the working of students' unions; (6) absence of religious and moral instruction in educational institutions; (7) financial anxiety; (8) lack of proper counselling; (9) dearth of proper home influence; (10) a defective educational system creating a sense of frustration due to unemployment among students; (11) interference by active politicians; (12) influence of the wider unrest of the contemporary world; (13) uncertainty about future; (14) changing social values; and (15) general absence of idealism.

Suggestions for tackling the first ten problems have already been given at different places in this book, and we would confine our attention to the discussion of the last five items. To a certain extent one of the main causes of the growing indiscipline amongst students is the happenings in the country during recent years. Our political leaders found it easy to appeal to the emotions of youth during the days of the national struggle, and did not hesitate to utilise them in staging demonstrations against the foreign rulers, and encouraging them to resort to methods of *satyagraha* like strikes and fasting. The habits of indiscipline and rebellion against constituted authority have disappeared with the attainment of independence and they are now using the same methods to attain more or less trifling objectives like getting a holiday in celebration of some event or in memory of some individual, obtaining or annulling the dismissal or transfer of some teachers, doing away with class tests, or protesting against the nature of a question paper at an examination. We often hear of student protests, strikes, demonstrations, picketing, window-breaking, furniture-smashing and defiance not only of educational authorities but also of the authorities of law and order. Influence of contemporary political parties is at times so great that elections to the students' union are conducted on political party lines.

The problem of indiscipline among college students naturally attracted the attention of the U.G.C. In 1959, the Commission appointed a Committee to study this problem carefully. This Committee reported that in many instances of serious student indiscipline in the universities it found 'clear evidence' of persons from outside the university acting as 'agents provocators'. It has, therefore, suggested in this context the desirability of all recognised political parties in the country coming to an agreement among themselves that they would not carry their politics and their rivalries into the campus of universities and colleges.

Noting that the causes of student unrest and indiscipline are "manifold and complex," the Committee has listed, besides interference by politicians, changing social values, loss of authority and prestige of teachers, increase in the number of students, the prevailing system of examinations, lack of "healthy" interests in physical or cultural activities and the use of students' unions as a "bargain counter" as the major factors contributing to the present indiscipline in colleges and universities."

In making suggestions for removing the causes of student unrest, the Committee has highlighted the need to admit students to the university strictly on the basis of qualifications and merit. If that is done the atmosphere in the universities will be greatly improved and conditions for a more disciplined life can be immediately created.

The Committee further drew attention to the "growing tendency" among people, since independence, to become agitated over even comparatively trivial matters and said, "We find that the technique of resistance to authority and civil disobedience that were used in connection with the struggle for independence in India are now used in a much wider area of life without the guiding principles and ultimate goals that governed the use of such techniques during the independence movement."

The Committee also referred to the changing times and social values as another factor leading to student unrest. With the advent of new ideas about the importance of the individual and with the stress on everybody's rights rather than responsibilities, it has become normal to question all the old forms of authority. Until new patterns emerge, the questioning of the old forms will inevitably take the form of revolt and defiance. The Committee observed: "In some of the instances of indiscipline we examined it was quite clear that parents had been unable to exercise any controlling influence on their sons and daughters."

It was further pointed out that the loss of authority and prestige of teachers is also a "very crucial" factor in the present situation. While the economic condition of many other classes of educated workers has improved, the teacher's position has not correspondingly improved. This relative deterioration in the economic position of the teacher has affected his attitude to work and his general outlook on life.

Finally, the Committee drew the attention of the country to the fact that students enter universities and colleges at an age at which in most of the other civilised countries of the world they are still at school, complicates the situation in India. The atmosphere of a university should therefore be one of ordered freedom in which the forms of private and public behaviour of students are influenced by their own mature judgment about conduct appropriate to the responsible position of university students. The Committee observed, "But boys and girls enter our colleges at too early an age and are unable to act as responsible free agents; and the colleges have often to organise their life as though they were still high school students."

It must, however, be appreciated that the amount and extent of indiscipline is much less than what appears in the headlines of newspapers and that only a very small fraction of the student body is guilty of the charge. In fact, it has become fashionable among the highbrows and light-hearted journalists to lament the steady deterioration in student discipline. It may also be noted that student indiscipline is not something confined to India, but it is a problem confronting all the countries of the world at present. The two world wars have set in motion a process of general demoralisation all over the world. As Humayun Kabir says:

> During these wars, truth was the first casualty... The wars saw the rise of a class who grew rich by adopting all kinds of objectionable methods...Young people could not but be affected by the loss of morals and the prevalence of black-marketing, bribery and corruption all round.[1]

One should, however, admit that one of the main causes of the prevailing spirit of indiscipline among students and their indifference to studies is the uncertainty of their future. The growing number of educated unemployed, including those with technical education, shows the dearth of opportunities for having a fruitful career after education.

And last but not the least is the general loss of idealism. The young are bewildered by the gulf that divides the precepts and the practice of their elders. They are asked to be upright, honest and disciplined. Yet barring a few outstanding examples, how many of our sermonists themselves practise what they preach?

Independence was expected to usher in a new era of honesty and a sense of duty. Unfortunately, seventeen years' self-rule have witnessed a marked fall in the moral standard of society. As Shri Patanjali Sastri, former Chief Justice of the Supreme Court, remarked, "Honesty, integrity, sense of social obligation and other civic duties are on the decline."[2] In fact, the first and most important test that our education has to stand is, whether it turns out the right type of human material that India needs today. Ours is the biggest, and perhaps the most ambitious, democracy in the world. Democracies in the world now-a-days are passing through many vicissitudes and the fortunes of many yet hang in the balance. Democracies depend almost entirely on the virtues and capacities of the 'Demos', the people. The future of our democracy too, is inescapably with and governed by, the quality, calibre and character of our citizens and their outlook and vision. And here is the real challenge that our educational system must meet.

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[1] Humayun Kabir. *Student Indiscipline*. Delhi, Publications Division, 1955. p. 6.

[2] *Fortieth Convocation Address. Banaras Hindu University*, December 24, 1957.

The next 10-15 years will form the most crucial period in the history of India and the entire future of the country depends upon what happens or does not happen during this period. Since education is the most significant factor in national development, it is obvious that the entire future of the country would largely depend upon the development of Indian education during the next 10-15 years. It is, therefore, essential to take a long-term view of the problem, to prepare a perspective plan of educational development to cover the next three Plans taken together and to finalise the fourth Five-Year Plan.

During the first three plans, we had adopted, the comprehensive, as against the 'selected sectors'. As J. P. Naik says, "We have tried to do something of everything."[1] We also laid stress on expansion; but we have neglected quality. The typical failures, however, have marred the development of education under the three plans. These are:

1. The failure to identify and promote 'essential' sectors, which require little investment but have a large effect on quality. For example, some of the essential

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[1] J. P. Naik. *Approaches to the Fourth Five-Year Plan in Education*. Bombay, Indian Committee for Cultural Freedom, 1964. p. 1.

services like strengthening the State Education Departments or the improvement of teacher education have been ignored.

2. Some of the 'qualitative' programmes have been converted into 'quantitative' programmes. This can be illustrated through our attempts to convert primary schools into Basic institutions, while Basic Education is a quality programme.

3. The failure to develop some selected institutions, which would serve as models.[1]

In the planning of the Fourth Plan, the above drawbacks will have to be rectified. Attention will have to be paid to the improvement of some of the essential services like administration and teacher education. It should further confine its number of model institutions in different fields of education, which should inspire others.

But the greatest defect of the three plans is that they are not *revolved* in any long-term plan and hence live merely from day-to-day. This drawback has now attracted the attention of the Planning Commission. It has fully realised that the Fourth Plan should be formulated in the perspective of development over a period of fifteen years (1966-81).

The entire planning should, however, rest on a sustained and cooperative effort between the Government and the citizen. We have chosen, very rightly chosen, the democratic way of life. In countries ruled by absolute Governments the power to formulate policies and enforce their working lies in a few hands. It is easy in such systems by the use of dictatorial powers and the employment of stern, coercive and ruthless measures to achieve remarkable material progress and even scientific and educational development. But these systems necessarily involve the destruction of the human spirit, the innate dignity of man. The human being becomes the machine carrying out the behests of a few without a right to determine the line of his own development or choose his future. The young man in these countries has no choice in the matter of his occupation or where he will pursue it. His vocation and the place where it is to be carried on are chosen for him by the State. Such a system would be in complete discord with the traditions and beliefs which have ruled us Hindus, Muslims and Christians for ages in this country. That is why we have chosen the path of human dignity, human equality and human fraternity which is the basis of the Constitution of Republican India.

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[1] *Ibid.* pp. 2-4.

But this democratic way of life involves greater awareness and greater responsibilities on the freedom loving citizen. Unlike under an absolute system of Government the citizen in a democracy has to think for himself so that his ideas and beliefs may be reflected by his representatives in whom rests in a democracy the ultimate direction and control of State policies. These duties impose a greater burden upon the educated citizen in a democracy like ourselves where the mass of the people are ignorant and unlettered and which functions on adult suffrage. With us there is as it were a two-fold task imposed on the educated and informed citizen. On the one hand he has to actively cooperate with the Government in furtherance of its efforts to build up the nation. The incentive and the motive force whch in an absolute Government are imparted by a few have to be found, in a system like ourselves, in the informed opinion and expressed views of the educated elite of the citizens. The informed men of the country, the men at the universities, the men in the professions, the men running the industries have to consider themselves as wheels which are helping to run the democratic machine and not units an entities apart and away from the Government. The new education will perhaps be able to achieve this end. Let us offer this prayer:

O! Spirit of Learning!

Give us Wisdom, Memory and Knowledge;
Give us glory and the Creative Word;
And the power to bring enlightenment to disciples.

Grant us the power of creative writing;
Give us good disciples who will earn fame;
Grant us clarity of thought;
And genius in the counsels of the wise.

APPENDIX ONE

EDUCATIONAL STATISTICS, INDIA, 1962-63

I. NUMBER OF RECOGNISED EDUCATIONAL INSTITUTIONS

	Type of Institutions	Total No. of Institutions
1.	Universities	54
2.	Board of Secondary and/or Intermediate Education	12
3.	Arts and Science Colleges	1,196
4.	Colleges for Commerce	57
5.	Colleges for Physical Education	18
6.	Teacher Training Colleges	166
7.	Schools for General Education:	
	(a) Higher Secondary Schools (including Multipurpose Higher Secondary Schools)	6,382
	(b) High Schools (including Multipurpose High Schools)	14,982
	(c) Post-Basic Schools	47
	(d) Middle/Senior Basic Schools	62,447
	(e) Primary/Junior Basic Schools	3,65,903
	(f) Pre-Primary Schools	2,519
8.	Schools for Physical Education	50
9.	Teacher Training Schools*	1,518
10.	Pre-Primary Teacher Training Schools	34
11.	Schools for Handicapped	160

* Including under-graduate Teacher Training Colleges.

II. NUMBER OF STUDENTS BY STAGE OF EDUCATION

Stage of Education	Boys	Girls	Total
1. University Stage			
(a) Post-graduate and Doctorate in Arts, Science and Commerce	3,740	815	4,555
(b) M. A.	28,848	9,130	37,978
(c) M. Sc.	11,964	1,914	13,878
(d) M. Com.	6,160	65	6,225
(e) M. Ed.	577	246	823
(f) B.A. (Pass and Hons.)	1,59,942	64,914	2,24,856
(g) B.Sc. (Pass and Hons.)	1,25,873	23,037	1,48,910
(h) B. Com. (Pass and Hons.)	56,519	526	57,045
(i) Teacher Training (B.T./B.Ed. and equivalent diplomas)	14,813	7,585	22,398
(j) B.P.E. (Bachelor of Physical Education and equivalent diplomas)	593	137	730
(k) I. A.	1,87,324	36,637	2,23,961
(l) I. Sc.	24,240	3,249	27,489
(m) Pre-University			
(i) Arts	1,04,871	32,542	1,37,413
(ii) Science	83,000	16,342	1,00,242
(iii) Commerce	31,037	2,953	33,990
2. School Stage			
(a) Classes IX and above	28,83,878	747,217	36,31,095
(b) Classes VI — VIII	60,96,487	2070,576	81,67,063
(c) Classes I — V	2,74,63,948	14038671	415,02,619
(d) Pre-Primary	1,13,615	91,113	2,04,728
* (e) Teacher Training (Primary)	1,28,593	52,096	1,80,689
(f) Teacher Training (Pre-Primary)	135	1,966	2,101
(g) Physical Education	3,284	633	3,917
(h) In Schools for the Handicapped	8,040	2,048	10,081

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* Includes the enrolment of Under-graduate Teacher Training Colleges.

APPENDIX TWO

UNIVERSITIES IN INDIA — 1963

Sr. No.	Names location and year of establishment	Character	No. of colleges (1962-63)	No. of students (1961-62)	Expenditure (in crores of Rs.) (1961-62)
1.	Agra University, Agra (1927)	Affiliating	122	51,044	3·29
2.	Aligarh University, Aligarh (1921)	Residential and Teaching	1	5,010	0·99
3.	Allahabad University, Allahabad (1887)	Residential and Teaching	6	8,664	0·85
4.	Andhra University, Waltair (1926)	Affiliating and Teaching	56	28,214	2·52
5.	Annamalai University, Annamalainagar (1929)	Residential and Teaching	—	2,975	0·50
6.	Banaras Hindu University, Varanasi (1916)	Residential and Teaching	18	8,653	3·36
7.	Baroda University, Baroda (1949)	Residential and Teaching	15	9,559	1·34
8.	Burdwan University, Burdwan (1960)	Affiliating and Teaching	35	17,390	1·43
9.	Bhagalpur University, Bhagalpur (1960)	Affiliating and Teaching	35	18,890	0.83*
10.	Bihar University, Muzaffarpur (1952)	Affiliating and Teaching	39	28,922	1·42
11.	Bombay University, Bombay (1857)	Federal and Teaching	46	50,692	3·20
12.	Calcutta University, Calcutta (1857)	Affiliating and Teaching	128	1,15,935	6·44
13.	Delhi University, Delhi (1922)	Affiliating and Teaching	31	18,939	2·43*
14.	Gauhati University, Gauhati (1948)	Affiliating and Teaching	43	33,437	2·31
15.	Gorakhpur University, Gorakhpur (1957)	Affiliating and Teaching	29	14,068	0·69
16.	Gujarat University, Ahmedabad (1949)	Affiliating and Teaching	80	39,833	2·97
17.	Indira Kala Sangeet Vishwavidyalaya, Khairagarh (1956)	Affiliating and Teaching	30	—	—
18.	Jabalpur University, Jabalpur (1957)	Affiliating and Teaching	21	9,554	0·85
19.	Jadavpur University, Jadavpur (1955)	Residential and Teaching	2	3,257	0·61
20.	Jammu and Kashmir University, Srinagar (1948)	Affiliating and Teaching	34	10,014	0·97
21.	Jodhpur University, Jodhpur (1962)	Residential and Teaching	8	—	—
22.	Kalyani University, Kalyani (West Bengal) (1960)	Residential and Teaching	4	339	0·14
23.	Kameshwara Singh Darbhanga Sanskrit University, Darbhanga (1961)	Residential and Teaching	24	—	—
24.	Karnatak University, Dharwar (1949)	Affiliating and Teaching	37	14,786	1·83
25.	Kerala University, Trivandrum (1937)	Federal and Teaching	87	49,865	3·89

26.	Kurukshetra University, Kurukshetra (1956)	Residential and Teaching	3	88	0·46
27.	Lucknow University, Lucknow (1921)	Residential and Teaching	16	14,293	1·18
28.	Madras University, Madras (1857)	Affiliating and Teaching	112	54,250	4·59
29.	Magadh University, Magadh (1962)	—	30	—	—
30.	Marathawada University, Aurangabad (1958)	Affiliating and Teaching	20	4,496	0·89
31.	Mysore University, Mysore (1916)	Affiliating and Teaching	64	36,587	3·57
32.	Nagpur University, Nagpur (1923)	Affiliating and Teaching	53	22,330	2·03
33.	North Bengal University, Siliguri (1961)	Affiliating and Teaching	16	—	—
34.	Orissa University of Agriculture and Technology, Bhubaneshwar (1962)	—	2	—	—
35.	Osmania University, Hyderabad (1918)	Affiliating and Teaching	40	21,115	2·83
36.	Panjab Agricultural University, Ludhiana (1961)	Affiliating and Teaching	8	—	—
37.	Panjab University, Chandigarh (1947)	Affiliating and Teaching	138	57,813	2·10
38.	Patna University, Patna (1917)*	Teaching	10	10,932	0·89 *
39.	Poona University, Poona (1949)	Affiliating and Teaching	60	31,767	2·77
40·	Punjabi University, Patiala (1962)	Unitary and Teaching	—	—	—
41.	Rabindra Bharati, Calcutta (1961)	—	9	—	—
42.	Rajasthan Agricultural University (1962)	—	3	—	—
43.	Rajasthan University, Jaipur (1947)	Affiliating and Teaching	69	30,960	3·18
44.	Ranchi University, Ranchi (1960)	Affiliating and Teaching	26	14,219	1·19 *
45.	Roorkee University, Roorkee (1949)	Residential and Teaching	—	1,832	0·87
46.	Sardar Vallabhbhai Vidyapeeth, Vallabh Vidyanagar, Anand (1955)	Affiliating and Teaching	8	4,740	0·72
47.	Saugar University, Sagar (1946)	Affiliating and Teaching	70	13,864	1·32 *
48.	Shivaji University, Kolhapur (1962)	—	—	—	—
49.	S.N.D.T. Women's University, Bombay (1951)	Affiliating and Teaching	13	3,147	0·28
50.	Sri Venkateswara University, Tirupati 1954)	Affiliating and Teaching	25	8,950	1·21
51.	Utkal University, Cuttack (1943)	Affiliating and Teaching	45	13,425	1·48 *
52.	U. P. Agricultural University, Pantnagar, Distt. Nainital (1960)	Residential and Teaching	3	415	0·56
53.	Varanaseya Sanskrit Vishwavidyalaya, Varanasi (1958)*	Affiliating and Teaching	75	—	—
54.	Vikram University, Ujjain (1957)	Affiliating and Teaching	58	20,906	2·24
55.	Visva-Bharati University, Santiniketan (1951)	Residential and Teaching	7	489	0·51

* Information relates to 1960-61.

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